ANSIT OUTLOOK Busy year ahead for carbuilders

January 5/12, 1970

RAILWAY AGE

THE TRANSPORTATION WEEKLY

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TOMORROW'S RAILROADS IN ACTION:

How three roads explore the market

MLW-Worthington's new, powerful, rugged 'M' line

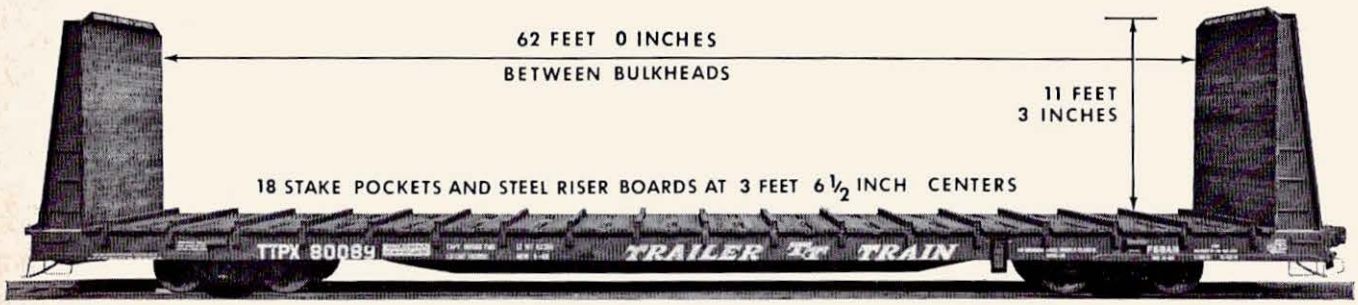
The 'M' line is a complete new generation of 2,000 to 4,000 hp diesel locomotives designed and built by MLW-Worthington. Some of the technological improvements incorporated into the 'M' line include: up-dated Model 251 engines with high capacity, water-cooled turbocharger and steel cap pistons; a single mechanically-driven blower and fully ducted electrical cooling and combustion air system; pressurized electrical control compartment; hi-adhesion trucks with low weight transfer characteristics and matching wheelslip highly discriminating and modulating control system.

If you are interested in economical power, call us.

Transportation Division
MLW-Worthington Limited
Montreal, Quebec, Canada

Circle 1 on coupon page 35

New kind of flat car for Trailer Train service



Bethlehem-built 68-footers... with or without bulkheads... ideal for lumber, steel products

Newest addition to the TTX fleet is this 68-foot flat car designed to Trailer Train's specifications, with chain tie-downs and 100-ton trucks. Bethlehem has delivered 246 of these cars to Trailer Train for their new venture into providing a different type of flat-car service... and the production line is still running.

Intended primarily for lumber haulage, the cars are more versatile than gondolas for some ladings. For example, their dimensions make them ideal for a variety of steel products such as standard 60-ft structurals, reinforcing bars, plates, and pipe. The cars are available with or without bulkheads.

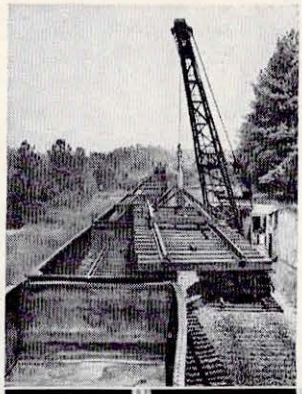
A batch of these cars would be a valuable addition to your railroad's freight-car fleet. Get in touch with Trailer Train Co., 1819 Kennedy Boulevard, Philadelphia, PA 19103.

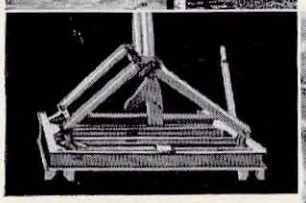
BETHLEHEM STEEL

BURRO
TIME SAVERS!

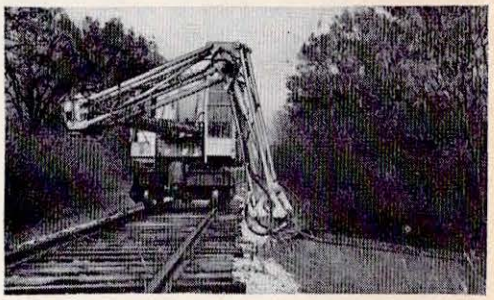
New Burro Multiple Rail Lifter handles up to 8 rails.

Model 40 Burro, equipped with automatic folding leads, shown driving piles with a diesel pile hammer.





This Model 40 Burro Crane using a Burro Panel Track Lifter picked up and loaded 106 completely assembled, 39' panel sections in less than 200 minutes.



Special Burro Boom carries 7' hydraulic brush cutter with 52' reach from track center.

Model 40 Burro Ditcher supplies its own locomotive travel and work power. Ditcher loads the dump cars and furnishes necessary air for dumping.

Rugged and versatile, Burro Cranes and Equipment get the job done fast and efficiently, on the line, in the yards or Stores Department. Burro takes any job in stride. Pile driving, ditching, handling welded rail, multiple rail or panel track lifts is done quickly and economically. Pound for pound, there's more work power and versatility built into BURRO Cranes than any other unit.

Write for complete information and and new Burro Crane Bulletin No. 51

WESTERN-CULLEN DIVISION
FEDERAL SIGN AND SIGNAL CORPORATION
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Canada: Woodings Canada, Ltd. • 5 Place Ville Marie • Montreal 2, Que.

Circle 3 on coupon page 35

RAILWAY AGE January 5/12, 1970 • Vol. 168, No. 1

THIS WEEK

TOMORROW'S RAILROADS IN ACTION—1—MARKETING

The first installment of a new year-long series describes how three railroads — Illinois Central, Burlington, and Southern — are successfully applying advanced marketing techniques . . . p. 20

How UP solved a rail-temperature problem . . . . . p. 26

Quality control for Santa Fe rail gangs . . . . . p. 27

Transit suppliers size up 1970 . . . . . p. 28

TACV: Mass-transport vehicle of the future? . . . . . p. 30

Viewpoint—Will there be a "tomorrow's railroad"? . . . . . p. 54

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. . . AND COMING NEXT WEEK

ANNUAL REVIEW & OUTLOOK: A detailed statistical account of railroad operations in 1969 . . . a comprehensive review of major developments in the railroad industry . . . and an exploration of what 1970 has in store for the industry in terms of projected capital spending, the outlook on the labor and legislative fronts, and expected developments in mechanical, engineering, and signal and communications departments.

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Whiting finds so many ways to cut your service costs

There are an encouraging number of new ways to shave time from maintenance schedules. Your Whiting engineer can show you most of them.

Our reputation for improving rolling stock service techniques has led to some interesting assignments. Like developing *complete systems* for Progressive Spot Repair, for washing out covered hopper cars, for filling locomotive sand boxes faster, for moving and spotting cars by remote control.

If *you* are considering new or modernized maintenance facilities, let's get together and discuss *all* the ways to save money.

ASK FOR Bulletin GT-104 describing Whiting ROBOT Remote Control Car Progression Systems for a wide range of repair and service operations.

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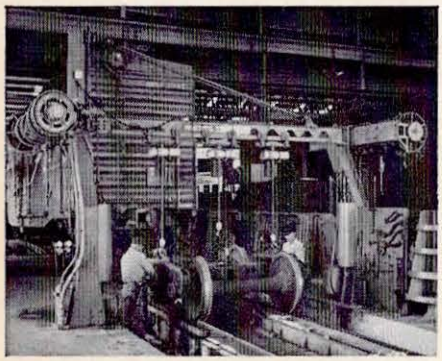
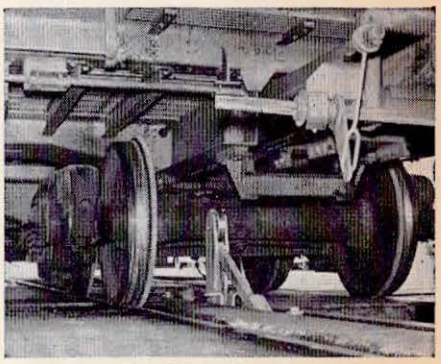


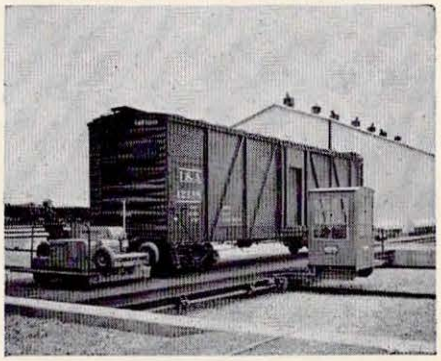
REPAIR STATION JIB CRANES

LATERALLY ADJUSTING RIPJACKS



"ROBOT" REMOTE CONTROL CAR MOVERS

DROP TABLES



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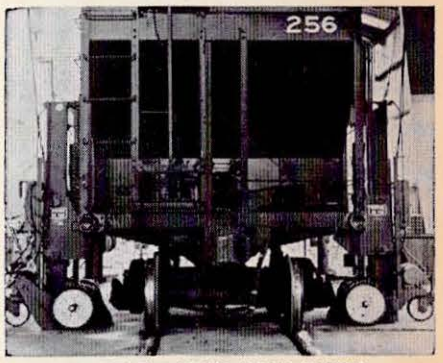
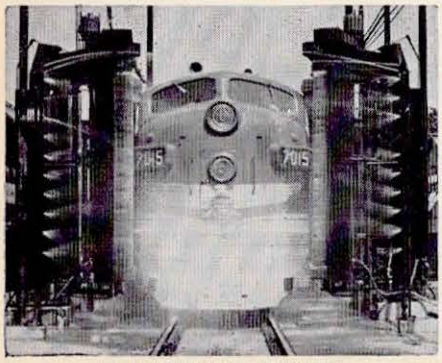
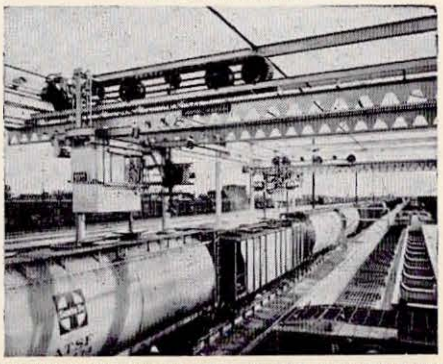


PORTABLE JACKS UP TO 50-TON



TRAIN WASHING SYSTEMS



WASHING INTERIORS OF COVERED HOPPER CARS

LOCOMOTIVE SERVICE GANTRIES

Circle 5 on coupon page 35

MONDAY MORNING REPORT

TAX RELIEF TO START THE '70s

When President Nixon signed the tax reform bill last week, railroads got something to cheer about. Although the President's signature killed the 7% investment tax credit, it give life to an improved form of tax write-off for the purchase and repair of rolling stock (RA, Nov. 3, p. 8). By one estimate, the gain in revenue will be $85 million in 1970. This gain will expand to an estimated $145 million annually by 1974. By comparison, the railroads' cash flow gain from the 7% investment tax credit was $66 million in 1968. This leads one supplier source to suggest that provisions of the new bill will lead to an increase in equipment investment.

FASTER AMORTIZATION OF NEW-EQUIPMENT COSTS

First, there is five-year write-off for new rolling stock put into service after Jan. 1, 1970. This applies to cars and locomotives owned or leased by railroads. Private car lines are excluded. Second, there is a four-year write-off for new rolling stock put into service in 1969—extending over costs unrecovered as of Jan. 1, 1970. This applies only to *purchased* equipment. *All* lessors, rail or otherwise, are excluded from the four-year provision. Rolling stock ordered before April 18, 1969, the effective date of the 7% repeal, will get tax credit as well as faster write-off. Third, the costs of repairing cars (not locomotives) can be amortized, provided these costs in one 12-month period do not exceed 20% of the units' basic purchase price.

GRADE AND TUNNEL PROVISIONS, HOWEVER, ARE SOFTENED

The Senate Commerce Committee had provided for amortization of grading and tunneling costs on the basis of a 50-year life span. That would have covered expenses totaling $3.5 billion. The signed bill, however, kills the retroactive feature. Rails can amortize these costs from Jan. 1, 1969 only.

RELIEF IN DOUBT FOR SEVERAL MONTHS

After the President's March proposal for 7% repeal, the House offered a seven-year write-off applying to *some* new rolling stock. The Senate followed with a proposal to let the rail industry shed the tax credit in phases through 1974. Flat cars and auto racks, however, subsequently were cut out. The picture was grey until the late-October news that the Administration had a new plan for relief. The plan was acceped by the Senate. However, a Senate-House conference produced the softening of the tunnel and grade provisions.

SHORT AND SIGNIFICANT

The shopcraft situation: Peace —for a while

Congress goes back into session Jan. 19 —and the impasse between the nation's railroads and four shopcraft unions may or may not be an immediate problem. The shopcrafts have said they won't strike before the 19th; word is out that new negotiations will begin on or before that date. The whole wage/rules dispute was once thought to be settled—until the Sheet Metal Workers' International Association vetoed terms which negotiators had agreed upon (RA, Dec. 22/29, 1969, p. 11).

CN will test big aluminum hopper cars

Canadian National has ordered five 100-ton-capacity, aluminum-structured hopper cars from Hawker Siddeley Canada Limited for research purposes. The cars will be delivered in August of this year; the test period will last six to 12 months. Tests will involve both the economics of the new cars and riding characteristics. In the latter, the research program will deal with a special type of trucks and vibration control systems. CN already operates 70-ton aluminum cars in western Canada.

ICI, Pepsi organization OK merger

Shareholders of Illinois Central Industries and Pepsi-Cola General Bottlers have approved a proposal under which ICI would acquire Pepsi General (RA, Nov. 3, 1969, p. 7). There had been reports that another firm was interested in an acquisition involving Pepsi, but shareholders were told that there has been no recent contact concerning an offer. Merger into ICI was approved by Pepsi shareholders by a substantial margin, with 73.7% of outstanding stock voted in favor and 11.3% against.

Air forwarding request by SP gets hearing date

The Civil Aeronautics Board has set March 31, 1970 as the starting date for hearings on Southern Pacific's request for air-freight forwarding rights (RA, Aug. 25, p. 47). Thomas P. Sheehan, CAB examiner, will conduct the hearings, for which no time limit is set. In view of the overtones of this case for the industry generally—Santa Fe and Missouri Pacific have made similar requests—the hearings may be lengthy, a CAB spokesman says. A pre-hearing conference, to set hearing ground-rules, was held Dec. 9. SP first made its request July 10, 1967.

Rice is chairman, Prime Osborn president of SCL

W. Thomas Rice became chairman of the board and chief executive officer of the Seaboard Coast Line Jan. 1. Chairman John W. Smith retired Dec. 31. Prime F. Osborn, formerly vice president-law, moved up to the office of president. In related moves, Erle J. Zoll, Jr., general counsel, became vice president and general counsel, and C. E. Mervine, Jr., assistant vice president-personnel, became vice president-personnel and labor relations. Rice became president of SCL July 1, 1967, when the merger of the Seaboard Air Line and the Atlantic Coast Line became effective.

IC proposes commuter-fare boost of 20%

Illinois Central commuters had their happy New Year spirits tempered just a bit last week—as IC announced its application for fare increases designed to produce a 20% increase in commuter revenues. Under the proposal, IC will also be streamlining its fare structure—with four fares in each of five zones replacing the present 108 separate commuter fares. IC's comment to its commuters: "Nobody likes to think about a general fare increase. IC has not had one for almost a decade. But the hard facts require that the railroad's commuter line make a reasonable profit. In addition to being able to maintain the present dependable service and to plan for even better service, including zone scheduling, IC intends to continue to make station, track and other commuter-line improvements in preparation for operation of new cars starting in late 1970."

General Electric Powered Metroliners Pass Million Mile Service Mark

. . . luxury and reliability keys to passenger enthusiasm

General Electric powered Metroliners, built by Budd, have rolled up over a million car miles in high-speed revenue service between New York and Washington since January.

Combining luxury, convenience and high reliability, Penn Central and the Department of Transportation have recorded a 72% increase in passenger travel between the two cities with a sensational 76% utilization of available seat miles.

Power for modern high-speed trains is just part of General Electric's total commitment to ground transportation, which includes locomotives, diesel engines and automation and propulsion systems for rapid transit, railroad and off-highway vehicle applications.

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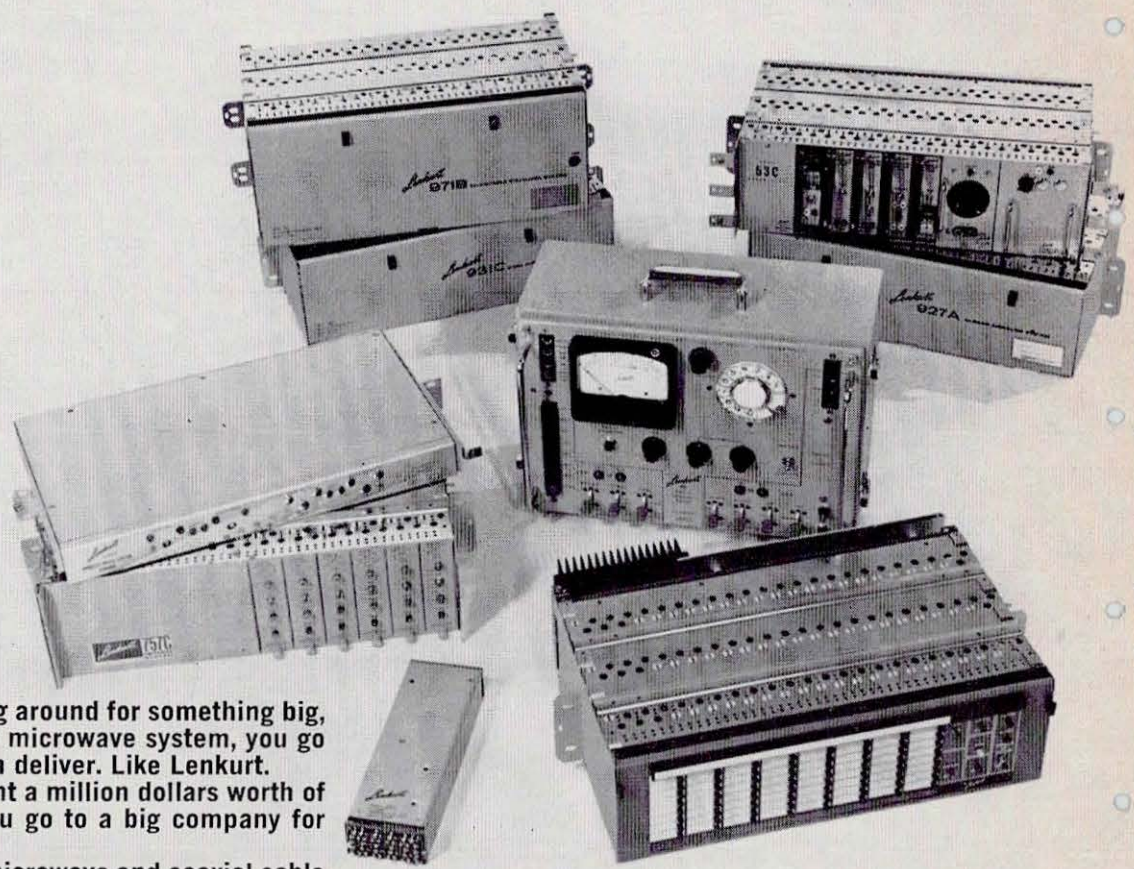
GENERAL ELECTRIC

These could be the end of something big.



When you're shopping around for something big, like a multi-million dollar microwave system, you go to a big company that can deliver. Like Lenkurt.

And any time you want a million dollars worth of cable carrier systems, you go to a big company for that, too. Like Lenkurt.

And when you want microwave and coaxial cable and multiplex and cable carrier and data transmission, you definitely go to Lenkurt. Because we're the only company that makes them all.

With all the big things we do, it isn't surprising that sometimes our small-ticket items, like accessories, get overshadowed.

So, just to let you know we have them: Any time you want some four-wire terminating sets, Lenkurt has them.

Or adjustable equalizers? Lenkurt again.

Or echo suppressors? Order wire? A microwave path protection system? A signaling system and a signaling test set? A status monitoring and alarm system? We have them all.

So when you come to us for the big things, don't forget Lenkurt makes the broadest line of the little things you need, too. Lenkurt Electric Co., Inc. San Carlos, California.

LENKURT ELECTRIC
Subsidiary of GENERAL TELEPHONE & ELECTRONICS

Transmission Accessories from Lenkurt

Railroads top other carriers in revenue gain

Operating revenues of carriers regulated by the Interstate Commerce Commission climbed to $26.4 billion in fiscal 1969, an incease of 6% over 1968, the ICC announced in its 83rd annual report to Congress. In terms of percentage increase, railroads led the field with a gain of 8%. Motor carriers had an increase of 6%; pipelines, 7%; water carriers, 2%; and buses, 3%. Only REA Express reported a decline. REA revenues were down 11%.

Congress was also told that the Commission in 1969:

—Authorized railroads and motor carriers to issue securities in the principal and par amount of $1.2 billion.

—Received 277,366 tariffs proposing new rates and fares. Of the proposals which were protested, the number suspended and placed under investigation slightly exceeded the number permitted to go into effect as scheduled. Some 4,300 rates were involved in the protests.

—Kept ahead of its incoming formal case workload during the year by closing 302 more cases than the 7,508 which were brought before the ICC.

—In the process of enforcing provisions of the Interstate Commerce Act, was able—through court action in 514 cases—to obtain assessed penalties of $1 million. Through civil claim settlements in 317 cases, a total amount of $569,030 was imposed.

WEEK AT A GLANCE

C&O/B&O unveil $55-million equipment program

Chesapeake & Ohio/Baltimore & Ohio have already earmarked $55 million for new equipment in 1970—and more may be on the way. Announcing plans for acquisition of 3,000 freight cars and 75 locomotives, President Gregory S. DeVine commented: "This is the first phase of our 1970 capital improvement program, with additional orders dependent on the final form of the tax bill . . . There hopefully will be sufficient incentive for the railroads to acquire cars and power urgently needed . . ."

During the four-year life of the 7% investment tax credit, C&O/B&O spent over $500 million for new equipment, DeVine noted. The tax reform bill repeals this credit. It offers railroads, instead, a five-year tax-write off period for most new equipment.

Superjet wings fly in triple-unit freight cars

In the near future, Avco-built 88-ft wings will be providing the lift for Lockheed's 350-passenger TriStar airbus. But right now they're making the cross-country run from Avco's plant in Nashville, Tenn. to Lockheed's assembly plant in Palmdale, Calif. in a special triple-unit assembly of freight cars. Louisville & Nashville worked with Avco on the design of the cars which, with a volume of 14,483 cu. ft., are claimed to have the highest cube ever designed into a freight car. Each car is actually a two-car set — each car holding one wing—connected by an 85-ft. flat car, as each wing car has a 19-ft. overhang. In all, the cars are 108 ft long, 9 ft, 6 in. wide and 19 ft, 8 in. high. They weigh in at 117,000 pounds. For loading and unloading, a bridge crane lifts away the top portion of the steel cover. It can then handle the wings—which stand on end and are in special cradles.

GUS WELTY

LINES ON LABOR

A QUESTION ASKED in mid-November got its answer just before Christmas. "Can Dennis, Luna and perhaps Crotty work together?" this column asked—referring to (1) Brotherhood of Railway and Airline Clerks President C. L. Dennis, who had just quit the Railway Labor Executives' Association, and (2) Presidents Charles Luna of the United Transportation Union and H. C. Crotty of the Brotherhood of Maintenance of Way Employes, who were on the verge then of pulling out. Well, Luna and Crotty pulled. So did the representatives in RLEA of two smaller rail unions, the Seafarers and the Hotel and Restaurant Employees. And the chiefs of these five organizations are now creating the Congress of Railway Unions (RA, Nov. 17, p. 12).

THE CONGRESS CAN'T HELP BUT BE a potent force in and for rail labor—if, in fact, there *is* anything anymore that can be such a force. CRU claims something like 500,000 rail employees represented by its five founding fathers. What's left of the RLEA has a lot more unions—but it has nothing to compare with a half-million members.

THERE IS SOME SURPRISE, maybe, that two strong-men such as Dennis and Luna could share an enterprise. But any rivalry between the two is more rumored than actual. And CRU provides a nice touch even here: Dennis, some time ago, became the rail unions' vice-presidential representative in AFL-CIO. Luna will be chairman of CRU, with Crotty as vice chairman and Dennis as chairman of the Committee on Railroad Retirement.

AS BEFITS ANY new organization, CRU sets forth a series of high purposes. Specifically, CRU aims "to develop better representation in the economic, legislative and political fields for the men and women employed on America's railroads and express agencies." Very specifically, CRU's first concern will be in the area of Railroad Retirement benefit increases and passage of supplemental-pension legislation which sailed through the House and stalled in the Senate. Automatically, CRU's target—on pension legislation—will bring it into conflict with RLEA.

IT REMAINS TO BE SEEN what effect having *two* rail labor associations will have on rail management/union affairs. Even a dedicated management man would have to concede that the old RLEA was sometimes a paper tiger. With Luna, Dennis, Crotty & Co., on one side and new RLEA Chairman C. J. Chamberlain on the other—well, we'll see what kind of tiger(s) are now running through the woods.

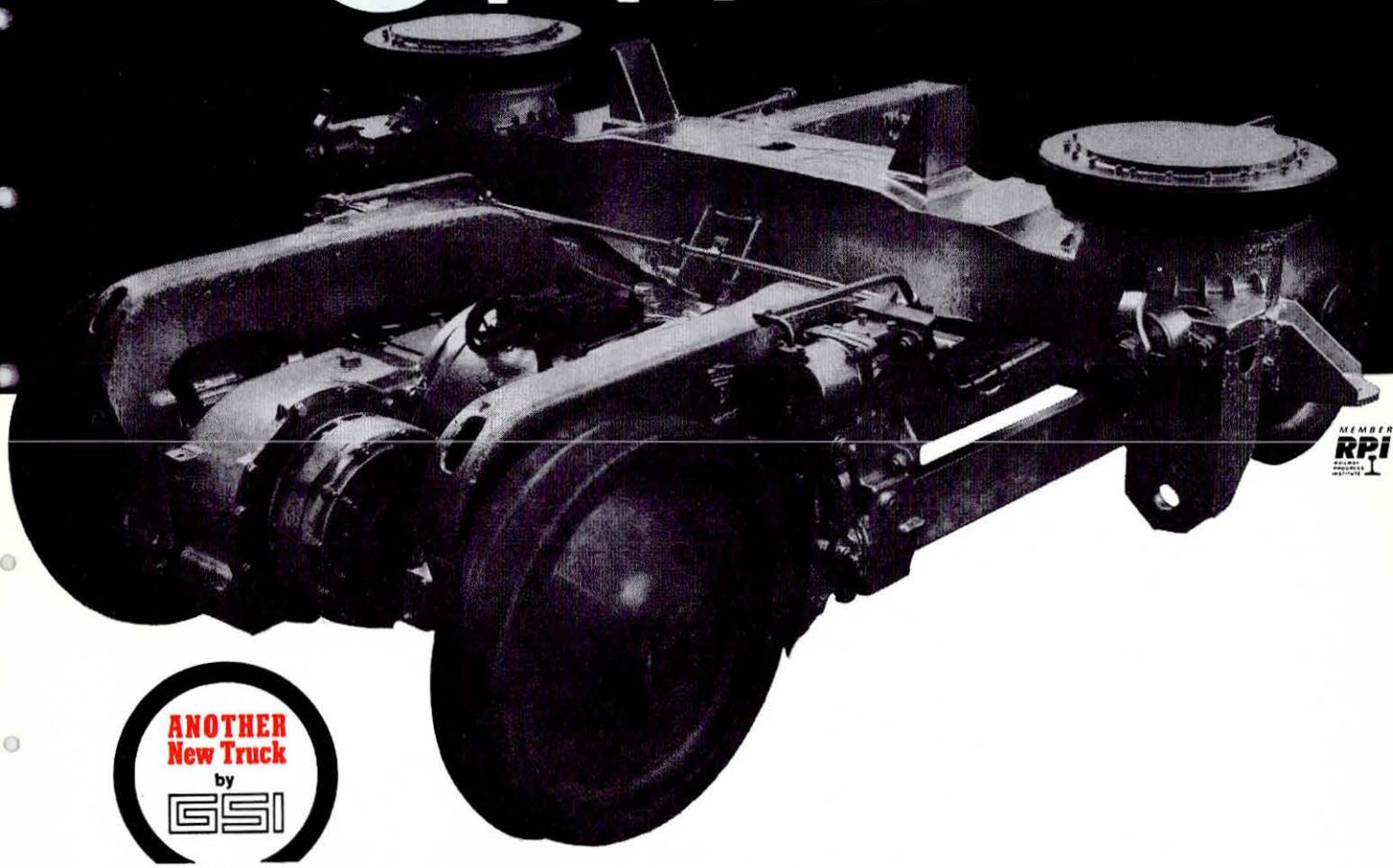
ICC orders WP to keep the Zephyr going

Once again, the ICC has told Western Pacific it must keep the "California Zephyr" running—at least until mid-February. This is the third time the Commission has turned down a WP train-off plea. And, says WP President Myron M. Christy, the new order is "not merely disappointing. It's frustrating." CZ is running at a $2.6-million out-of-pocket loss, says Christy, yet the ICC "bases its third order . . . on the 'prospect' that some kind of Congressional action 'may' be forthcoming within a reasonable time." His conclusion: "We sincerely hope this is the end of this approach to the 'California Zephyr' problem—and that either the Congress will act before Feb. 14 or, in the absence of such action, that the Commission will face up to the facts and relieve WP of this tremendous financial drain." Earlier, the ICC had ordered Rio Grande to keep its segment of the CZ operating until Feb. 14. And, as it released the WP order, the Commission put a similar delay on discontinuance of Southern Pacific's part of the "City of San Francisco" run.

Brussels Metro using ACI

The newly opened Brussels Metro has become the first subway to utilize the KarTrak automatic car identification system. The section of the Metro which became operational Dec. 17, 1969, serves six stations in the center of the city covering about 2½ miles. The remainder of the system, consisting of 50 stations, will be constructed over the next 15 years. Until the subway is completed, cars from Brussels' surface transportation system are being used in the underground facility. As such, a large number of cars—with different routes and destinations—are being routed through the Metro. ACI systems have been placed outside tunnels at both ends of the completed Metro route and transmit the designations of the next three cars to waiting passengers. ACI labels have been mounted on boards and inserted into holders on the inside of car windows. The Sylvania KarTrak ACI system was provided by Automatic Electric S.A. of Antwerp, a subsidiary of General Telephone & Electronics International as part of $600,000 subcontract.

SHE'S RIDING ON AIR



MEMBER RPI

ANOTHER New Truck by GSI

GSI General-70 High Speed Trucks provide exceptional riding comfort and safety at 100 mph speeds for New Jersey's new commuter fleet. They feature a double spring system with high-and-wide location of bolster air springs to assure maximum stability at high speeds and under all operating conditions. And, of course, cast steel framing assures safe, trouble-free service.

This new-design truck is another of the General-70 family which includes trucks for the Metroliner and other pace-setting equipment.

GENERAL STEEL INDUSTRIES INC.

CASTINGS DIVISION | GSI

Granite City, Ill. • Philadelphia, Pa. • San Francisco, Calif.

Cars built by GSI – St. Louis Car

Maybe someday the other guys will have a guaranteed, million dollar reservation system like Max.

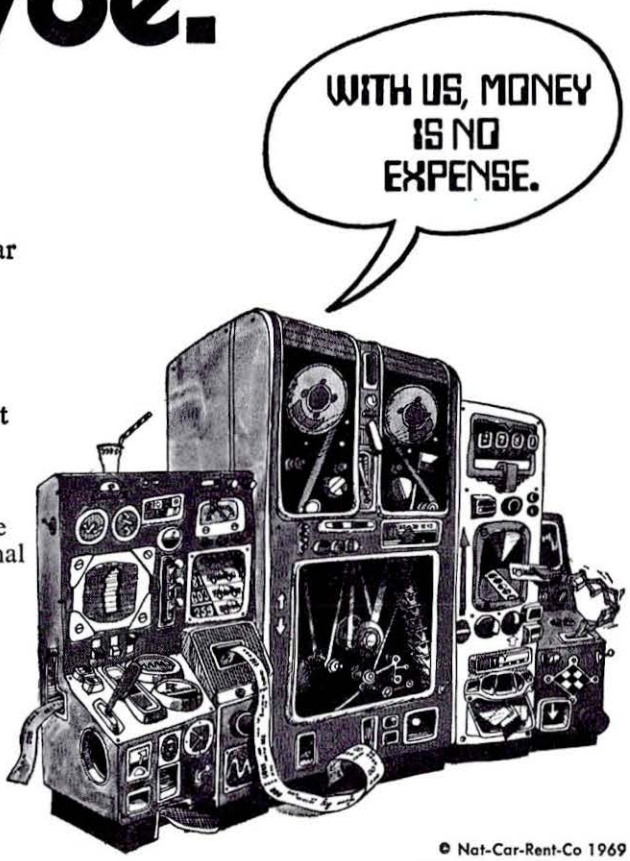
Maybe.

When the other guys reserve a car for you, they assume it'll be there. National *knows*. Because right now—today—National has Max, a million dollar computer.

Max knows the whereabouts of every car in our fleet. When you call, he tells us instantly and we can guarantee your reservation.

Max isn't the only difference, either. National has GM cars, S&H Green Stamps and a trusting nature that prompts them to accept any recognized credit card at any of their 1800 locations.

Maybe someday the other guys will have all of those things. But why wait? National guarantees your reservations now!



NATIONAL CAR RENTAL

We make the customer No. 1.

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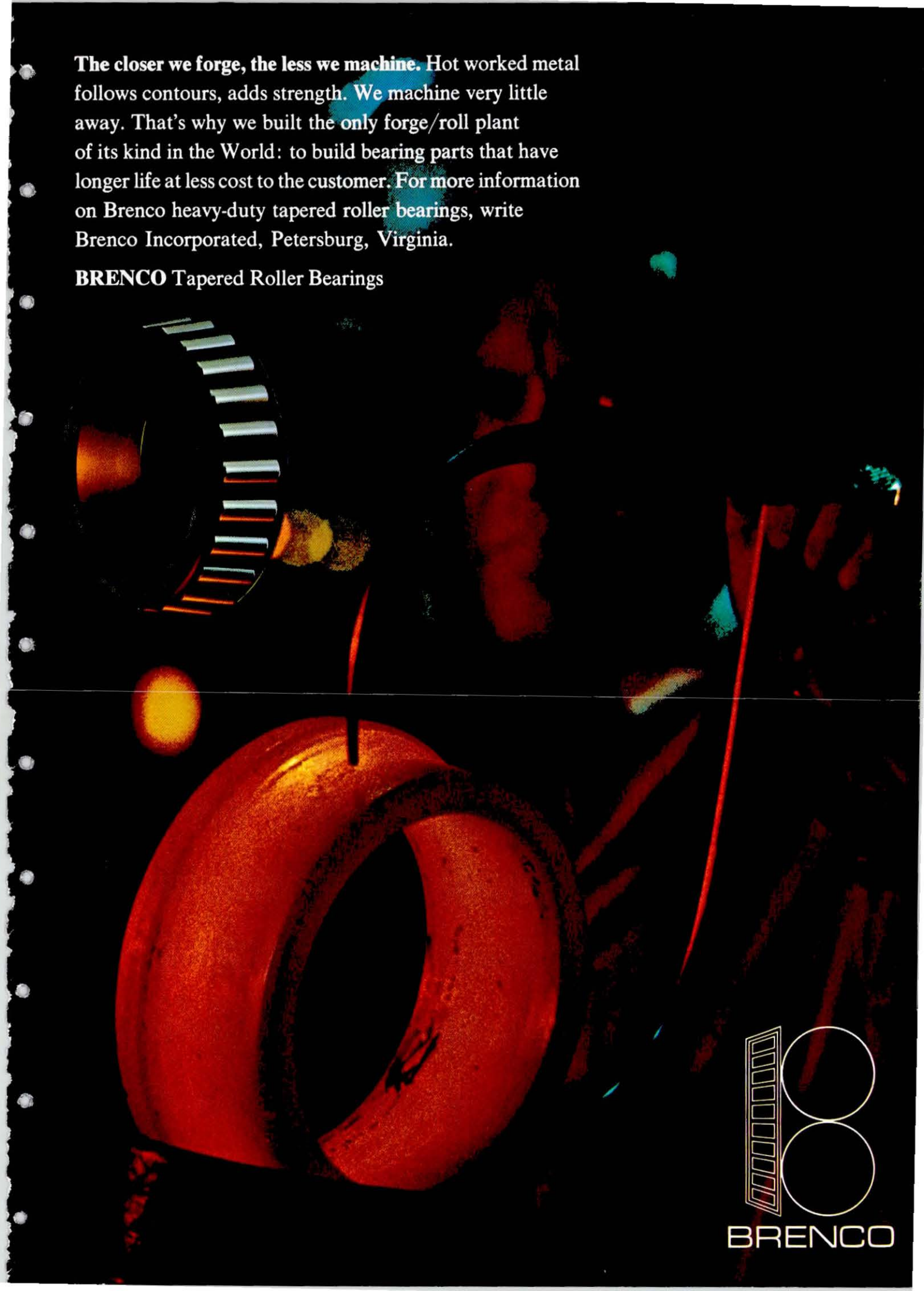
The closer we forge, the less we machine. Hot worked metal follows contours, adds strength. We machine very little away. That's why we built the only forge/roll plant of its kind in the World: to build bearing parts that have longer life at less cost to the customer. For more information on Brenco heavy-duty tapered roller bearings, write Brenco Incorporated, Petersburg, Virginia.

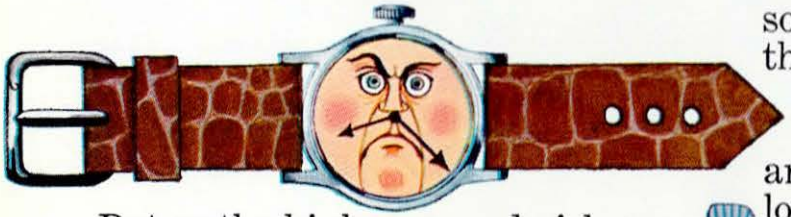
BRENCO Tapered Roller Bearings



BRENCO

The little Metroliner that could.

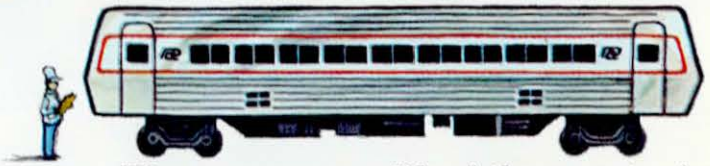
Once upon a time there were two cities called New York and Washington. The people in these cities loved to visit each other, and their cousins in Philadelphia and Baltimore, too.



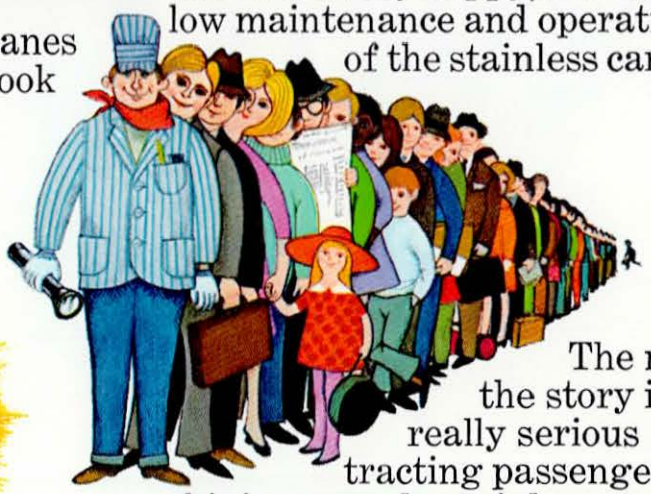
But as the highways and airlanes got more and more crowded, it took more and more time to get back and forth.

Then one day the people at the Penn Central Transportation Co. and the U.S. government had an idea. Why not improve the roadbed and run high-speed passenger trains between the cities?

So they got to work, and the Budd Company built a set of shiny new trains called Metroliners. Naturally, they used nickel stainless steel so the cars would be beautiful, corrosion-resistant, strong, and lightweight.



The passengers liked the new trains so much that they often bought up all the reserved seats, days in advance. The trainmen were very proud to work on Metroliners. And the railroad accountants were very happy, because of the low maintenance and operating costs of the stainless cars.



The moral of the story is, if you're really serious about attracting passengers, use a shining, speedy stainless steel train. And then you can add your chapter to the story of trains that could.

For more information on nickel stainless steel for railway and transit cars, write to The International Nickel Company, Inc., 67 Wall Street, New York, N.Y. 10005. In Canada, The International Nickel Company, Limited, P.O. Box 44, Toronto-Dominion Centre, Toronto 111, Ontario. INTERNATIONAL NICKEL

It has never been so urgent to train and upgrade employes —or so easy!

. . . Or so inexpensive!

Home-study courses, tailored to the different needs of the maintenance-of-equipment department, can develop skilled journeymen from your present force of unskilled labor. It can cost as little as $6 per month per trainee. The Railway Educational Bureau provides the courses, and does the grading.

Many railroads use it!

The Bureau already has formal arrangements with 17 Class I railroads, one industrial railroad, a mining railroad, and a private car company. Successful completion of four-year courses qualifies apprentices as journeymen. Some roads use accelerated programs, turning out skilled machinists, electricians, carmen, car inspectors and other craftsmen in as little as three years. In the case of especially responsive students, two years is sufficient for the regular four-year course. But short of full apprenticeship programs, many other railroads use shorter REB courses for upgrading and refreshing.

Railroads and trainees get feedback.

Instructors of the Railway Educational Bureau, all active railroad men themselves, grade students' examination papers and make individual comments and suggestions to the students when such help is needed. In the case of formal, company-sponsored programs, the railroad gets a monthly report of each students' progress.

Who qualifies?

Any railroadman. Courses are written for employees with a high school level of education.

How to participate.

Besides formal apprentice training programs on a contract basis, railroads may help an employee by paying half his monthly tuition, or all of it, or by reimbursing the employee on successful completion of his training. Or, like several railroads, they may authorize payroll deductions.

For more information.

Write now, or phone collect, to Joe S. Betz, Director, Railway Educational Bureau, 1809 Capitol Ave., Omaha, Nebr., 68102, telephone (402) 341-7889, or Harry L. Waddell, Simmons-Boardman Publishing Corp., 30 Church St., New York, N.Y. 10007, telephone (212) 964-3060.

Railway Educational Bureau

RESEARCH and DEVELOPMENT BACK UP the "TOTAL DESIGN CONCEPT" of the BARBER STABILIZED TRUCK...

ON THE TRACK WHERE IT COUNTS

The "Total Design Concept" of the Barber Stabilized Truck is constantly being improved. These changes are the result of "on the track" research where advanced electronic equipment enables Barber engineers to observe and record performance under actual use conditions.

This is why the Barber Stabilized Truck gives longer life, greater lading protection, lower maintenance cost AND lower first cost, too.

"Talk to the Man from Barber"

BARBER STANDARD CAR TRUCK COMPANY
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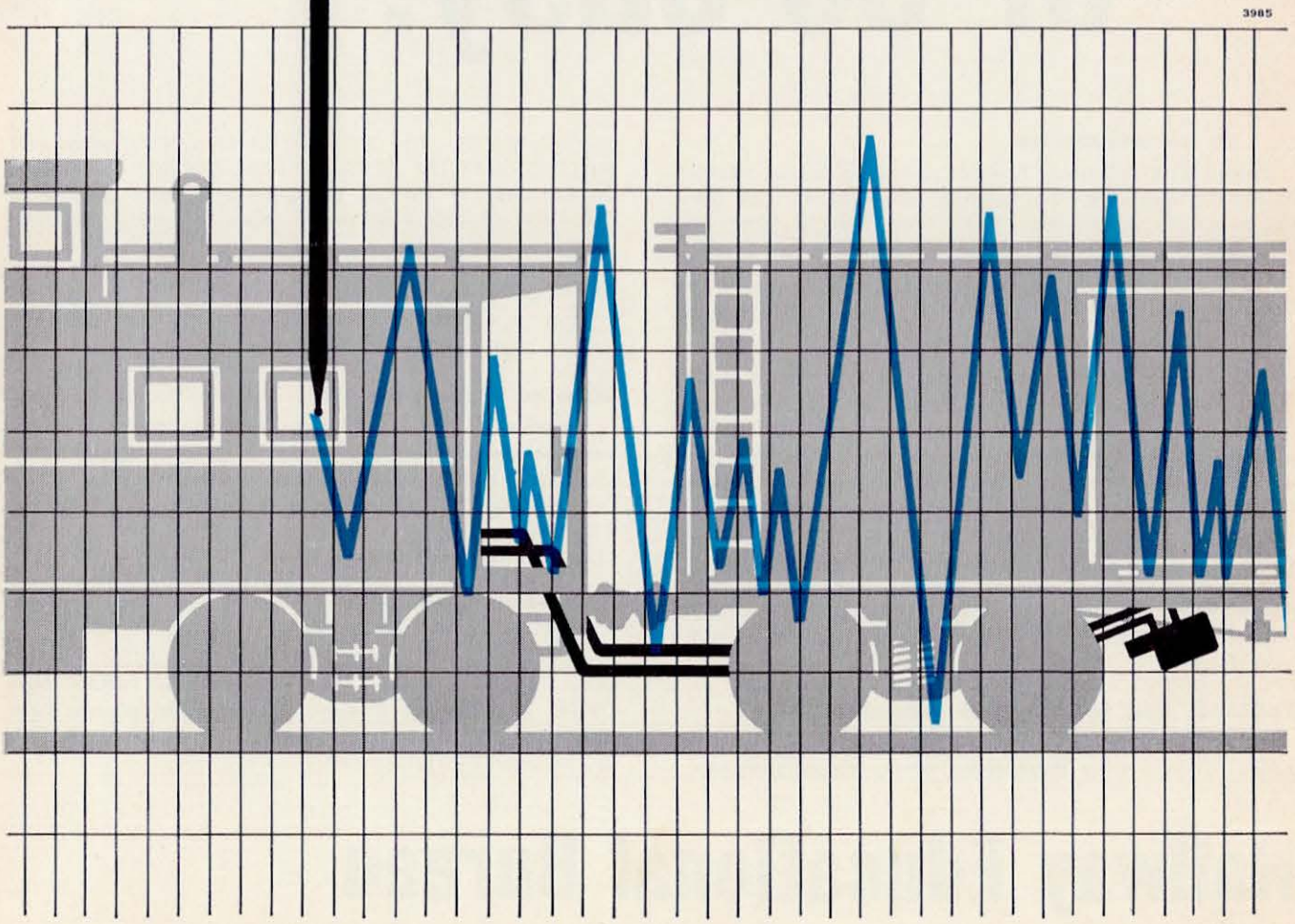


Circle 10 on coupon page 35

CP, CN see challenges in the '70s

Canadian Pacific sees major advances in its multi-modal transportation systems and in its development of natural resources in the decade of the 70s.

"It will be an exciting decade," said N. R. Crump, CP chairman, "in which total distribution systems will gain widespread acceptance in Canada. Containers will integrate train, ship, truck and air cargo for speed and reliability, while high-powered unit trains will haul huge volumes of specific commodities to market. Solids pipelines will become a reality."

The new decade, the CP officer continued, will provide the railway industry with a special challenge. "The development of broader transportation policies, started with the report of the MacPherson Royal Commission in 1961 and achieved under the National Transportation Act of 1967, has sharpened the competitive vigor of the transportation industry."

Gross freight revenues, Crump said, are expected to continue to grow at the present rate of increase. In 1969, freight revenues increased an estimated 5% over 1968.

● **More unit trains.** One of the first developments of the new decade, the CP chairman added, will be the inaugural run of CP Rail's unit trains, transporting coal from Kaiser Resources' Mines at Sparwood, B.C., to Roberts Bank. "This integrated system, with a potential capacity well in excess of present delivery schedules of 6 million tons annually, is the forerunner of similar trains planned for other commodities."

N. J. MacMillan, chairman and president of Canadian National, said that "perhaps the most important challenge of the 1970's for Canadian transportation will be continuance and acceleration of the current trend toward modal specialization. As modes specialize into their sectors of natural advantage, they will more and more join hands to perform transportation moves."

To meet the demands ahead, MacMillan said, "greater emphasis will be placed on marketing the company's facilities and abilities, aiming for profit consistent with long-term growth. To do this, CN will have to develop even more as a complete transportation organization, and at the same time accelerate activity in the marketing field to explore new areas of distribution." ■

LUTHER MILLER

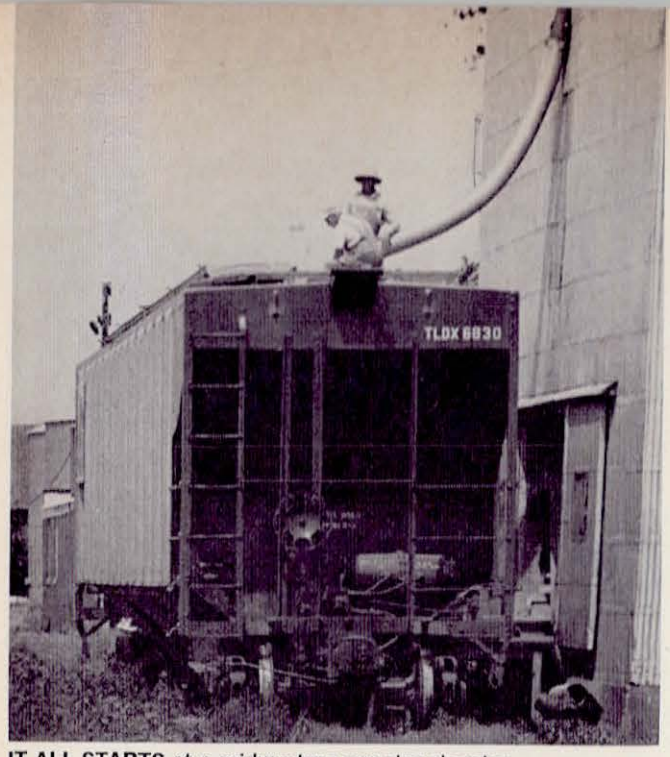
AS THE EDITOR SEES IT

WHAT CAN YOU BUY WITH $1.2 BILLION—in terms of transportation capability? You can buy a brand-new, high-speed railroad capable of providing economical transportation for the millions—as the Japanese have demonstrated with the New Tokaido Line. You can buy the world's most advanced mass-transit system, as California's Bay Area is now proving. You can buy 75,000 new freight cars and 1,000 new locomotives, as America's railroads demonstrate whenever they can scrape up the cash or credit. Or you can spend the money in rather more peculiar ways, as the U.S. government—that pious champion of "balanced transportation"—is demonstrating. Two prime exhibits are before us as a new decade begins.

EXHIBIT NO. 1 is the U.S. government's commitment to spend $1.2 billion for a supersonic airplane that will make such an infernal racket that it can never fly over populated areas—but will, as noted previously in this space (Sept. 29, 1969), add enormously to U.S. "prestige," in the view of the White House and the Congress. Some fuddy-duddies do not share this view, among them the New York Times, which commented, in a Dec. 27 editorial: ". . . the Administration and the Congress have made an incredible choice. Together they have neglected mass transit in favor of the SST. . . . Thus the nation will enter the next decade full speed ahead in the wrong direction."

NO LESS INCREDIBLE is Exhibit No. 2. The following is quoted from the New York Times of Dec. 30: "The taming of the Arkansas [River] cost $1.2 billion, making it the single biggest public works project in the history of the country. . . . The Garland Coal Company of Fort Smith expects to use the low-cost transportation offered by barges to export coal. This company is already moving coal in trains to Port Arthur, Tex., at the rate of a million tons a year. Eventually the coal will move on the river." Low-cost? The Times itself recalled a comment by Will Rogers to the effect that it would be cheaper to pave the Arkansas than to develop it. (There is the uneasy thought that if the present Administration had been in power when this wondrous project was conceived, the Arkansas *would* have been paved.)

BUSINESS WEEK in its Dec. 7 issue predicted, almost casually, that railroads would very likely be nationalized during the new decade. We don't buy that for a minute. But if we get much more "balanced transportation" of the kind Washington has recently been dispensing, we may have to change our minds.



IT ALL STARTS at a midwestern country elevator . . .

ONE CAR, two, three, four—a Mini-train takes shape.

TOMORROW'S RAILROADS IN ACTION—MARKETING

IC: A Mini-train is born

Great ideas are not necessarily born in splendor—in the decorator's-delight surroundings of the posh executive suites of today's sky-scraping office buildings. Great ideas are being born today in an antiquated and dingy pile on Chicago's lakefront — Central Station, home of Illinois Central's top management and a place which one IC staffer has come to call "the brain factory."

IC has no monopoly on innovation, of course. What IC *does* have is a controlled atmosphere in which innovation isn't just encouraged: It's demanded. The building itself may be yesterday; what goes on inside is strictly tomorrow.

● **Payoff for innovation.** IC's recent tinkering with rail markets has paid off in various ways—at the cash register, for instance, and in the kind of recognition that feeds the soul if not the body: For two years in a row, IC has won the Railway Progress Institute's Golden Freight Car award for outstanding freight-traffic promotion. And it would come as no real surprise if, late in 1970, there were to be another parade of IC people on-stage at RPI's awards ceremony. IC's "great idea" for '70, some observers believe, has a success-potential that stretches over a wide variety of transportation services, not just one or two.

They call it Mini-train. It's not exactly Bee-Line, as pioneered by Reading. It's not exactly an adaptation of the short, fast train concept adopted by a number of roads, perhaps most notably Rio Grande. Mini-train is really a tailored service which promises to (1) improve the customer's distribution process and (2) put the railroad into markets where rail transportation never before figured or where business was long-ago lost to other forms of transportation.

Up to this point, Mini-train has been little more than a stylish experiment. IC ran two-weeks-worth of Mini-train grain-service tests last summer. But in that limited test, IC people—and customers, actual and potential — saw enough to convince them that the concept deserved thorough exploration.

● **Making a start.** The grain trade was a logical place to start, in any effort aimed at seeing just how competitive a railroad can be. As IC Chairman William B. Johnson has pointed out, the railroad "has been steadily losing its proportionate share of the grain-gathering business in mid-Illinois, the greatest grain-producing area in the world. The total market there is 30 million tons—and it's growing. We estimate our share to be somewhere in the neighborhood of seven million tons, on an annual basis. We currently handle about 2.9 million tons, and that is shrinking rapidly. Our research people feel that we will completely lose that tonnage to the trucks, despite the fact that this is a growing market, in less than five years."

IC's investigation of the situation "revealed the obvious. In the area, a carlot of grain going, say, a distance of 50 miles averaged something like 20 days for the roundtrip, because of the maze of seniority districts, crew-change points and terminals through which such shipments traveled. Trucks, unburdened with [such problems], obviously have a great advantage in handling such short-haul tonnage."

Marketing men, however, refused to run up the white flag. They proposed Mini-train—the five car, two-man-crew train which would, in effect, go anywhere and do everything required in the grain-gathering process. Analysis of Mini-train "revealed a curious fact shining up from the numbers: Such Mini-trains would be truck-competitive at any distance." Shippers were also intrigued. Preliminary talks indicated that this kind of service "was just what they wanted to buy—and that IC would not only hold onto its present tonnage but would also speedily recapture the tonnage it had already lost."

Those conclusions were enough for Vice President-Marketing John W. Ingram and the rest of IC's management team: Mini-train ran.

● **What Mini-train did.** During the first week of tests, the five-car train completed 12 roundtrips between coun-

THEN IT'S OFF TO THE PROCESSING PLANT—and the cycle is soon ready to begin all over again.

try elevators and a Swift & Company plant at Champaign, Ill. It hauled 6,000 tons of soybeans. Its trips averaged 76 miles. During the second week, the train made eight trips, averaging 88 miles, with a total of 4,000 tons of soybeans.

What happened? Says IC: "Swift was enthusiastic. The elevators shipping soybeans to Swift were impressed that IC was capable of providing such premium transportation service."

Rail management and Mini-train crewmen had similar thoughts. Mini-train "was successful, from the standpoint of the operating men who watched it like a hawk during the experimental two weeks." One brakeman, with an eye on tomorrow, predicted that such a service "would get back the grain IC lost to the trucks, and then some," if it could be spread to other customers in the area. A conductor offered his summary: "This is the way to run a railroad."

There was, of course, one inevitable "catch" to the whole experiment. Mini-trains were run under existing labor agreements, with existing requirements for crew size and crew changes. Under these circumstances, one observer noted, "it would have been a miracle if Mini-train had been successful economically," because existing contracts were not written with short-haul success in mind.

● **Expansion on an idea.** Still, Mini-train was an eye-opener. With it as a focal point, IC and its employee organizations kept working toward areas of agreement which could make the concept a complete success. And IC's marketing men kept turning up new ideas for applying the basic Mini-train principle. Among other things, the researchers proposed:

—Operation of hotshot trains for direct movement of steel and steel products in metropolitan areas within switching districts.

—Tailoring the operation of switching services for industries which require something less than a standard switch engine and crew.

—Operation of so-called garbage trains. Most discussion of waste-removal trains concerns big-city problems, IC's people note, but "the market is even greater in medium- and small-sized towns that are running out of disposal space for refuse." By one estimate, 25 communities along IC lines represent better-than-average commercial possibilities. Millions of tons of freight and much new revenue can be obtained, the researchers say, "by railroads able to gear their services to this new urban need. Trains must be small. They must run without interruption. And they must operate profitably on thin margins."

—Mini-train-type movement of building products in densely-populated metropolitan areas.

—Mini-train-type movement of a wide range of agricultural products, in addition to grains.

(At the same time, IC marketing people were not overlooking expansion possibilities in what might be called "maxitrain"—the Rent-A-Train concept which has proved successful in movement of export grain from inland to the port. Rent-A-Train techniques could perhaps be adapted to produce rail service for petroleum and chemicals which would be "equal or superior to pipeline transport." R-A-T might also have a place in movement of livestock from ranches to feedlots to packers.)

● **Utilization is the key.** Mini-train's economic or commercial foundation is not unlike that of Rent-A-Train: It *is* a rental proposition which emphasizes high utilization of manpower — with smaller-than-"standard" crews which will operate regardless of seniority-district boundaries and road and yard work distinctions.

Several things happen when the complete Mini-train concept is applied. In the grain-gathering operation, for example, these conditions are set up:

—The transportation "product" becomes something very different, with origin-to-destination time measured in hours, not days.

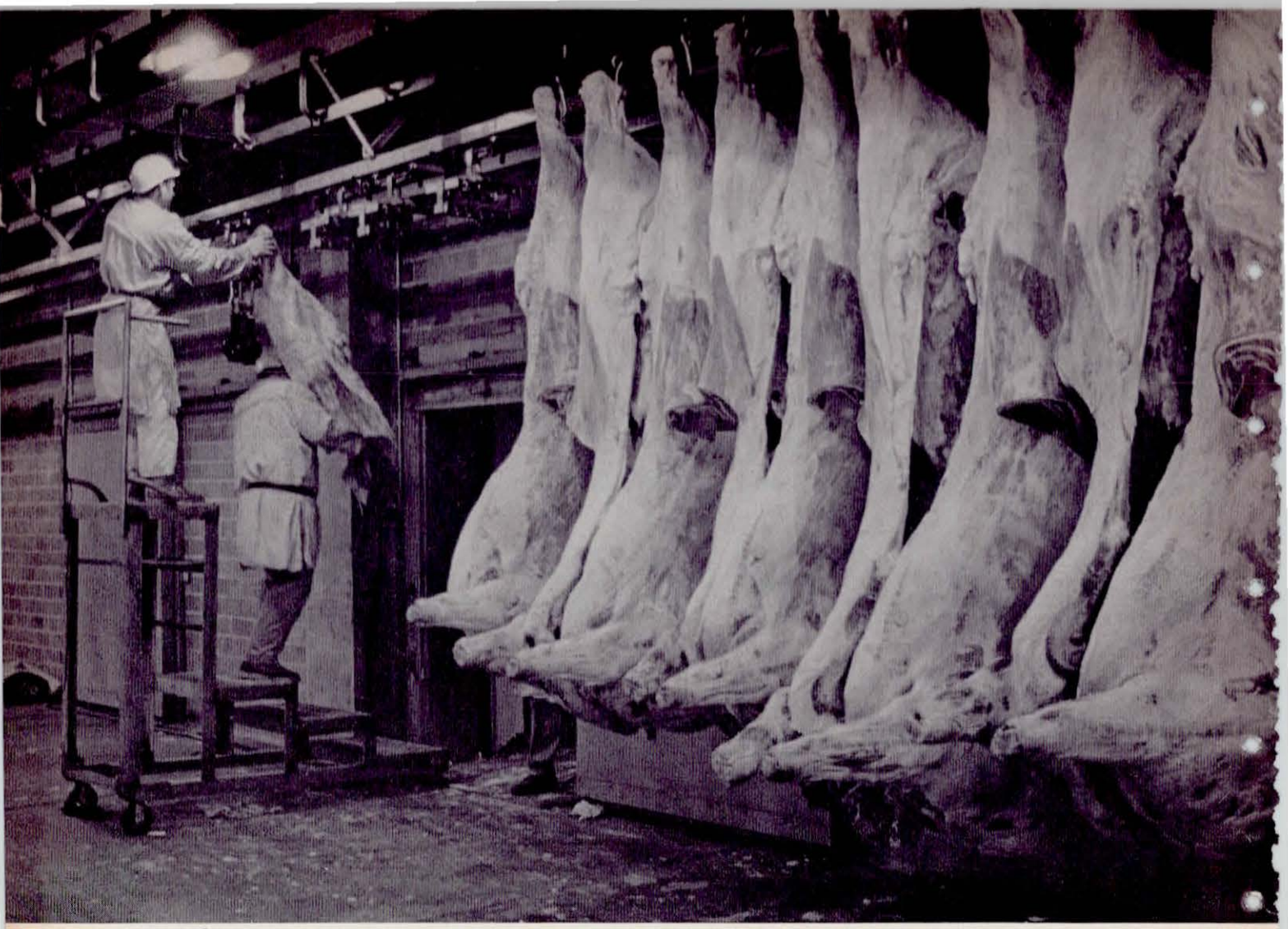
—The railroad product becomes truck-competitive, for even the shortest hauls.

—The railroad's share of outbound traffic from grain processors' plants should rise.

—Substantially less equipment is needed because of the high equipment-utilization factor.

After the brief experiment last summer, one IC officer described it as a marketing-man's dream: "I'm being kept busy discussing the Mini-train concept with shippers in a number of industries—and I find that they're often talking about the use of Mini-train to handle short-haul tonnage we never see."

But will Mini-train swing? Will IC and its employee organizations combine to make an economic success out of a concept that can unquestionably be an operating success? Will IC be the proving-ground for a whole new kind of railroading? Make the answers affirmative: The Mini-trains are coming—and, hopefully, soon.



UP TO 6,000 HEAD of dressed beef will be moving each Friday from Denver via Burlington to Chicago and the East.

TOMORROW'S RAILROADS IN ACTION—MARKETING

Burlington beefs up TOFC

BURLINGTON'S PIGGYBACKER loaded some of the Q's 300 new reefer trailers at Denver for the first run.

What do you do when you find the distribution patterns changing in a major transportation market? What do you do when you see a transportation market growing—and you're not getting a decent share of the growth?

If you're like Burlington, you take a good hard look at the market—and your own capability to serve it. And once you make an assessment of the market and your individual capability, you follow up with action.

● **Beef by TOFC.** A couple of weeks before Christmas, Burlington showed the visible evidence of this kind of study-plus-action program: The first weekly Beef Express left Denver, bound for Chicago and the East Coast on a schedule that clips 24 hours off previous schedules to the East.

Every Friday, this piggyback flyer will be pulling out of Burlington's 19th Street Yards in Denver. Trailing the diesels will be up to 6,000 head of dressed beef in reefer trailers on flat cars.

Burlington people say they are investing about $5 million in the new operation—including the acquisition of 300 new refrigerated trailers and the installation of new piggyback ramps and other facilities at Denver and Fort Morgan, Colo.

● **Response to change.** CB&Q President William J. Quinn calls the service "a response to the changing transportation demands of Colorado meat packers." The packing business, he points out, is both fast-growing and fast-changing: "Slaughtering plants and feedlots have moved where feed grains are grown. Thanks to agricultural science, these grains now flourish in areas where substantial cultivation previously was unknown. The rise in national population has resulted in increased demand for meat, and greater affluence has produced higher per capita consumption of meat."

Burlington is making its move for greater profitable participation in the meat traffic at a peculiar time—a time when some railroad men, at various places in the industry, tend to despair of ever making a dollar on movement of meat. And the Q itself, researchers found, was not immune to these feelings. Studies of the whole situation, marketing people say, turned up certain evidences of "lack of equipment, lackadaisical service, unrealistic rates and—most important—a defeatist attitude with respect to this traffic. Our basic premise is that we have turned our back on dramatic growth in the meat business."

● **Signs of changing times.** In looking at the meat business, researchers developed a picture of change:

—Per-capita beef consumption has gone up by about 20% in the 1960s, and population increases have compounded the growth. Levels of meat production in Burlington territory have remained high.

—Structural changes have been taking place in the packing industry. The biggest packers have declined in importance in relation to the total industry. Terminal markets have declined in their significance, and "the most dramatic of these market declines is that of Chicago. Chicago was once the largest market slaughter station in the world. Now it is insignificant in terms of national meat production."

—Changes have been occurring in the economic configuration of the business. There has been "a movement of slaughter facilities closer to growth and production areas, and a rise of the commercial feedlot . . . as an economic entity in the industry." Increasingly, cattle are being moved from feedlot to slaughter, not from grazing land to slaughter. And there is an important relationship between feedlot location and the price and availability of grain.

—Transportation has played one part in bringing about change. Refrigeration technology has been improved. Piggyback has provided a new flexibility in service.

Taken together, these factors have produced a far-flung packing industry, rather than one that locates its plants at consumption centers or where yesterday's labor centers were.

BEEF EXPRESS, suitably equipped with steer horns, was under way after the champagne splashed over the coupler.

● **Studies show problems.** Burlington made a number of traffic and revenue comparisons, which showed fresh meat, meat products and by-products revenues peaking early in the 1960s.

Other studies showed a "frightening decline" in the over-all rail share of meat and meat produced traffic, though researchers figured that the decline-curve "will flatten out with aggressive competition in the rate area . . . as well as with the growth in importance of TOFC."

At the same time, there were evidences of economic changes, reflected in "a contest between the packer and the retail chain." Major packers, Burlington says, were showing an uncertainty about expansion. But "the rapid movement of chain stores into the meat-packing . . . business is ample evidence of the strength of other forces. The question remains to be answered, as to whether the meat packer will provide case-ready meat for the retail chain or whether the chain will move back into the slaughter and processing of meat and make its own case-ready product."

● **Problems in transportation.** Changes in rail transportation in the meat business were also taking place during Burlington's study—and the results of change were not all encouraging. The Q's researchers found, for example, that other owners were retiring ice-bunker reefers at a faster rate than Burlington, and that a number of competing railroads were acquiring reefer trailers more rapidly.

Added to equipment problems were service difficulties. Railroad competition was one factor, but there was also strong competitive activity from truckers. And as one Q researcher summed it up, "The truckers realize that service is their major selling point—and they capitalize on it."

Rates were still another element in the total problem. Research people found a "dis-incentive" to use ice cars. They found a rate relationship which created under-utilization for 50-foot mechanical reefers. They found TOFC rates that seemed out of kilter in comparison to motor-carrier rates.

● **How about profitability?** Finally, investigators found the attitude problem. And in a report to management, they laid it on the line: "Too many people believe that this meat transportation is unprofitable, although they really have no knowledge of its profitability. Unfortunately, these people are not afraid to state their beliefs . . . Loose talk about profitability of meat

traffic has permeated the entire railroad in all departments."

What were the research people talking about? For one thing, they said, "a two-year-old cost study of specific TOFC meat movements has been erroneously extrapolated to the entire meat traffic area." This kind of attitude, one researcher said, "is no way to demonstrate to our customers that we aggressively solicit new traffic. And I'm also convinced that operating people are unlikely to handle the meat traffic with dispatch when they believe that 'We're not making any money on it anyway.' "

What it boiled down to, apparently, was that a series of decisions—made singly, and singly justifiable—had "made it all but impossible to achieve growth."

● **Possibilities considered** The research people looked at several alternatives. One was abandonment of the traffic, but this would have serious side effects. Another was based on price adjustments, but this could involve long delays as well as serious competitive effects. A third involved revision in operating methods, including conversion or retirement of ice cars, developmental work on a less-expensive reefer, increased utilization of TOFC equipment and exploration of the market for an all-meat COFC unit train.

The eventual recommendation called for an inter-departmental study which would make an evaluation, set goals and develop an action plan.

● **Looking at the problem—from all angles.** The Q called it "Meatcom," and it was in fact a study group, a task force, that involved all-concerned—people in cost analysis, operations, mechanical, sales, pricing, industrial engineering, marketing. It had top-management backing, from President Bill Quinn on down.

Meatcom came up with a number of ideas—the most visible of which was the Beef Express which made its first run out of Denver on Friday, Dec. 12.

And Burlington did not hesitate to let people know about it. Display ads in The New York Times, the Philadelphia Inquirer and the Wall Street Journal carried the message east: "With the beautiful Rocky Mountains as a backdrop, we start our fast run to the East—and your dinner table. . . . The cost of launching this new piggyback beef speedster is about $5 million. . . . As a result, fresh beef reaches you fresher than ever. But our extra speed doesn't add a cent to the cost of the meat you buy."

As a price-conscious housewife might say, "Keep it up." As profit-conscious marketing men might add: "Amen. We hope we can."

TOMORROW'S RAILROADS IN ACTION—

Smart promotion helps keep the Southern green

Green Light campaign, which won the road a coveted award, has also helped turn its freight tonnage sharply upward.

If you run into a Southern employee, and he's wearing a lapel button that looks like a green bullseye, and it's not St. Patrick's Day or any other occasion for wearing of the green, don't be surprised. Just ask for the big story behind the little button, and the Southern(er) should be happy to tell you.

The button represents the reason why he should be happy to talk, or happy just to be working for Southern.

What you should hear is how one railroad turned a common, traditional operating signal into a symbol of unity and a sign of service. What you should hear is how the term "Green Light" has come, in recent months, to represent an across-the-board merchandising effort designed to sell a theme to employees as much as to customers.

● **What the green means.** The button stands for a theme with these words: "Southern Gives A Green Light to Innovations That Squeeze the Waste Out of Distribution." The words became the pivot of a project that won for Southern a 1969 Silver Freight Car award from the Railway Progress Institute.

And, a Southern spokesman says, "We believe the Green Light program has served as a catalyst for the railway's merchandising efforts over the past two years. It has been an across-the-board program with many key departments—including sales, marketing operations, engineering and research—contributing to its effectiveness."

For the first ten months of 1969, Southern reports an 8.6% rise in ton-miles over the same period of 1968. In 1968, the year when Green Light really got moving, Southern reported a 12-month ton-mile rise of 9% over the 12 months of 1967. The 1966-to-1967 increase was 2.3%. And, Southern adds:

—Shipper playback indicates the message is getting through.

—Reader inquiries have grown tenfold, compared with pre-Green Light ads.

—Readership research proves the ads are seen and digested.

—Employees seem to have caught the spirit the Green Light symbolizes.

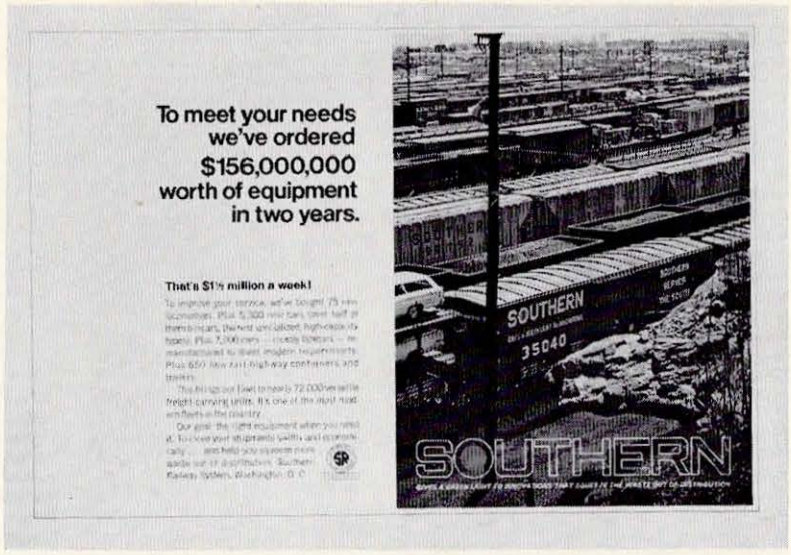
Through newspapers, news and trade magazines, house publications, speeches and presentations by company officers, and little things like green buttons, the word went out (and still goes out) that Southern is a railroad looking for fresh concepts of distribution by steel wheel on steel rail. The theme chosen not only gave shippers a symbol of something they could look for from the railway. It also gave employees a symbol of a unifying principle.

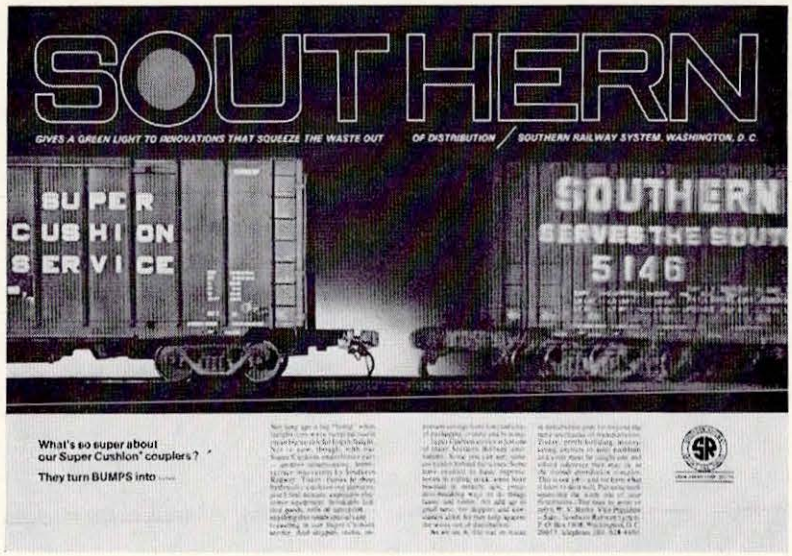
● **Program itself is innovative.** What the average Southern employee might be less familiar with is the development of the button he wears. That development itself is an example of the innovative spirit the button represents, because the Green Light program was a break from previous Southern promotions.

The first thing Southern had to do was to take an honest look at its own ad and promotion programs in comparison with those of its competitors. Southern found that its efforts were too scattered and divided to snare many eyes. The media Southern advertised in were saturated with carrier ads. In just one year, Southern discovered, six leading business and news magazines carried 1,364 pages of ads for carrier services and industrial sites.

Southern also discovered that the ads that got attention were strong in visual elements. Headlines and art forcefully projected the gist of whatever the ads had to offer.

With these things in mind, Southern set out to find its slogan. What was needed, Southern decided, was some-





ALL SIGNALS GO:
In these ads, and others now familiar to Southern customers, the "O" in road's name becomes a green "go" signal. The symbol has become a meaningful one to both Southern and its patrons. As ad at right indicates, Southern backs up its promotion effort with heavy investments that, quite literally, help to deliver the goods.

thing strong enough to (1) combat a long-attached railroad stigma, the belief that rails lack initiative and aggressiveness, and (2) compete with air, truck and other-rail ads through uniqueness and drama.

● **How Southern began.** To find that slogan, Southern first looke at its innovations in service, equipment and rates. What was there, in all of these, that was the common denominator? What could be used to communicate the principle underlying the varied innovations? The idea of waste-elimination surfaced. Then the words had to be found. From hundreds of suggestions by employees of all departments, the final wording evolved. Finally, Southern went about constructing the program of merchandising, sales promotion and advertising that would carry the new-born slogan.

Ad-preparation included the color green for the "O" in the word Southern, and blowup of the entire word to headline size in layouts.

Illustrations, headlines and texts of advertisements were designed to tell stores of car-locating, super-cushion underframes, Big John hopper cars for grain, and unit trains. The text was tailored for three basic audiences: General business, financial and plant-seeking readership; freight traffic professionals; and "friends and neighbors" along Southern lines.

In addition, Southern gave prominence to the Green Light theme in "vertical" ads to various industries—furniture makers, pulp and paper producers, construction companies, chemical firms, textile manufacturers and farmers.

● **Coordinated program.** Throughout, the program of merchandising by media was coordinated with direct mailing of related publications to key government and shipper people carefully selected by Southern officers. Also, 18,000 shippers, public officials and financial analysts received ad reprints.

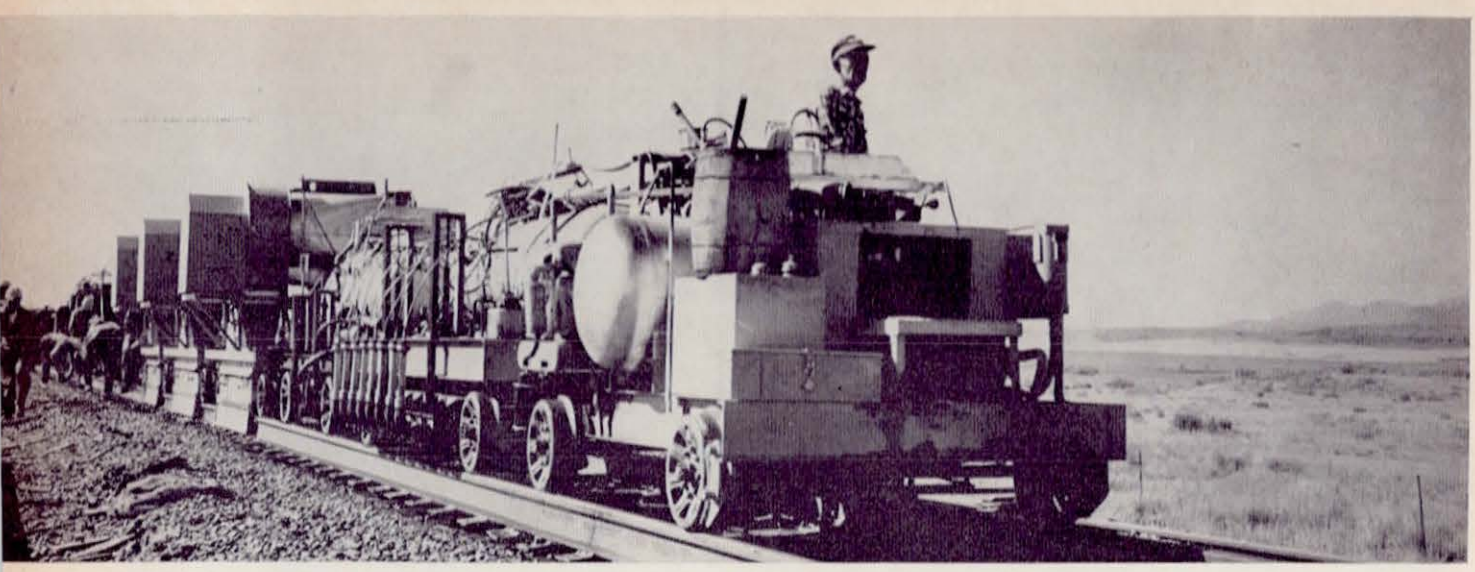
The Green Light also started appearing on an assortment of printed material such as stationery, messages to stockholders, the annual report, sales literature and industrial-development booklets.

The Southern sales staff, credited with much of the success of the Green Light campaign, was briefed on the project at special Green Light meetings. These consisted of presentation and discussion of the program in sessions at Atlanta, Washington, New York, Richmond, Va., and Charlotte, N. C.

Also aiding the project were Green Light news releases to 500 daily and weekly newspapers on Southern lines, articles and speeches by Southern officers, and signs and displays for conventions in Southern-served cities.

But what about employees? How did they get the message? First, there were those rallies for sales personnel. Then, the operating people were given the task

(Continued on page 32)



NOT TOO HOT, NOT TOO COLD: One pass of UP Teleweld rig usually achieves the desired results.

UP solves a temperature problem

Welded rail is brought to selected anchoring temperature by heater-cooler.

In collaboration with Union Pacific engineers, Teleweld, Inc., has developed equipment for reducing the incidence of pull-aparts in winter and kick-outs in summer in continuous welded rail (CWR). The equipment is comprised of heating and cooling units mounted on track cars.

Before instituting a major CWR laying program, Union Pacific reviewed all available information regarding the problems encountered with this type of track construction.

After analyzing all facts and theories available, the UP engineering department decided that the optimum rail-laying temperature in relation to the average rail temperature was still a theoretical figure. However, it was further decided to establish a CWR anchoring temperature for each area on the railroad and to provide equipment to bring the prescribed temperature within a comparatively close tolerance.

Before Teleweld's equipment became available, UP's new rail-welding plant at Laramie, Wyo., began to ship rail. Since temperatures at that time were already above the selected anchoring temperatures, the rail had to be cooled before anchoring. For this purpose, the road sprayed the rails with water, using a tank truck and garden hoses. Later, this was supplanted by a long pipe manifold supported by rail dollies and pushed by a laborer. This was a development by M. E. Byrne, UP's engineer of track at Salt Lake City. The pipe manifold had six sets of nozzles spaced at intervals over one rail and was supplied with water by the accompanying tank truck.

● **Evaporation found effective.** UP found that the temperature of the rail continued to drop for as long as 10 minutes after application of the spray and that the major portion of the temperature drop was created by evaporation of the water. It was found that immediately behind the last spray nozzle the rail temperature had been reduced by from six to eight degrees, while 100 feet behind the last nozzle, after evaporation of the water, the rail temperature had been lowered as much as 40 degrees, proving that evaporation was more effective than the water temperature.

Teleweld's heater equipment and initial cooler equipment became available on June 10. At that time the equipment, operated by one man, consisted of three track cars—a power unit, heater car and water car.

The power car, through hydraulic motors and reduction-gear assemblies, propels the outfit at speeds up to 10 mph. The heater car has a 200-gallon propane-gas tank and is used to heat the rail through eight burners on each side of the rail. The water car carries a 400-gallon water tank with a hatch for loading ice, and an electric-driven pump for applying water to the rail through spray-nozzle assemblies.

● **Humidity is a problem.** The water car did not prove adequate when rail temperatures exceeded 100 degrees. But it was found that using it in conjunction with UP's manifold assembly did give the desired results. Further testing proved the system was extremely effective at low humidity. But, as the relative humidity increased, bringing rail temperature down at the desired production rate was virtually impossible. It became obvious that evaporating equipment was necessary, and three such units were built by Teleweld.

These are called evaporator cars. Each carries a radiator-type heat exchanger and an electric-driven blower unit.

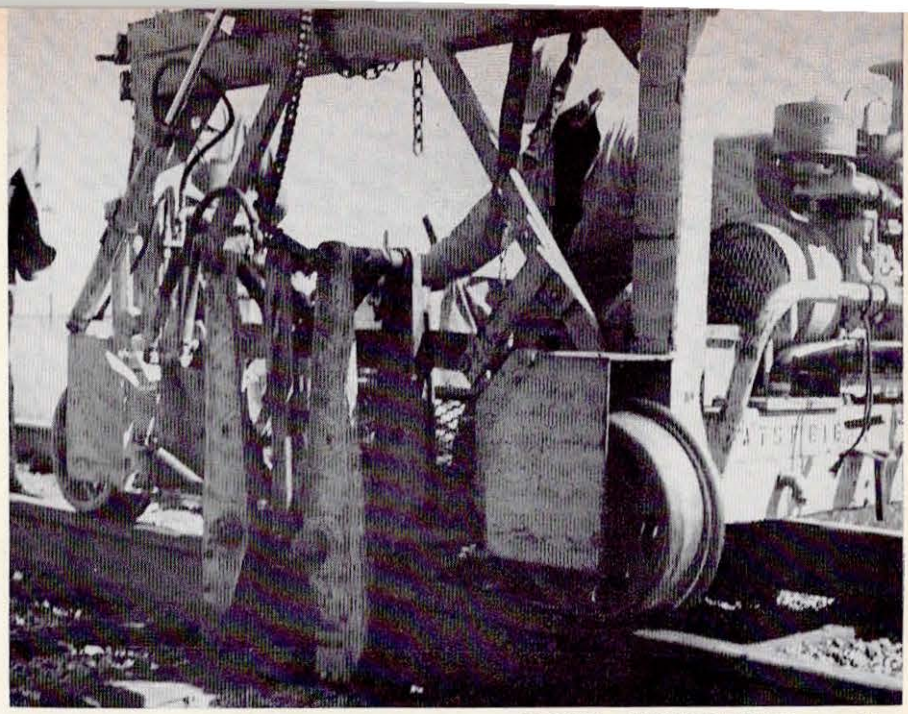
Chilled water from the water car is pumped by a gasoline-driven pump through the radiators and the ambient air is drawn through the heat exchangers, cooled and applied to the rail through nozzle assemblies. This causes rapid evaporation of the water applied to the rail and tie plates, with a resulting drop in rail temperatures.

● **Now standard equipment.** George Maxwell, UP's senior staff engineer, explains that the CWR heater-cooler has been made part of the gang's standard equipment. It is always used when the rail temperature varies more than two degrees from the selected anchoring temperatures. It is used directly behind the rail-laying crane.

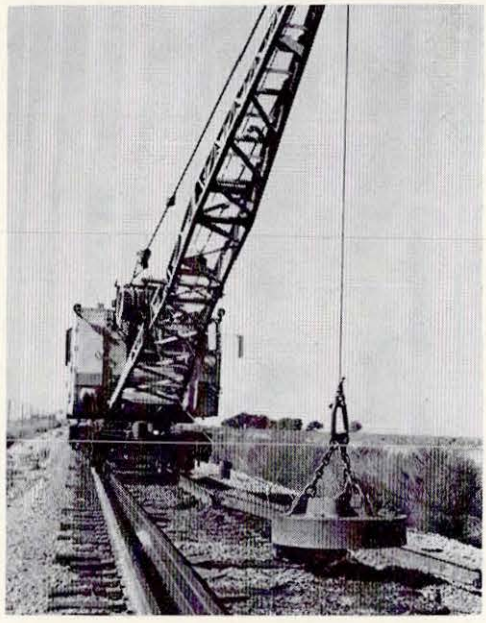
Maxwell reports that cooling the rail presents much more of a problem than heating, and it is felt that the existing water application and evaporator equipment can be improved to provide much greater efficiency by substantially reducing the amount of water required to be sprayed on the rail. Union Pacific is cooperating with Teleweld in developing these improvements. ■

Quality control for ATSF rail gangs

Follow-up unit's job is to detect flaws in workmanship.



RACINE ANCHOR-TIGHT machine, which forces rail anchors against ties, is key feature of quality-control units.



MODEL 40 BURRO CRANE, equipped with 36-inch magnet, throws out old rails and fastenings, saves 6 to 8 men.

If a Santa Fe rail-laying gang does work that is sub-standard in any respect, the defective workmanship is corrected immediately behind the gang. If the work done by the rail gang is found to be falling consistently below standard in some respect, steps are taken to assure that the standard of workmanship is brought up to the desired level.

These objectives are accomplished by attaching to each system rail gang a follow-up quality-control unit. The unit is equipped to perform any type of corrective work that may be encountered.

One of the units was recently seen in operation behind a rail-laying gang that was working on Santa Fe's main line about 50 miles west of Amarillo, Tex. The gang was engaged in laying 1,440-foot strings of continuous-welded 136-pound rail in replacement of 131-pound jointed rail. A year previously, the track in this vicinity had been re-tied and surfaced.

● **Rail-gang practices.** The long rails had previously been unloaded onto the roadbed shoulders. The practice was to join the strings when laid with angle bars but to replace these either the same day or the next with Boutet butt-welds.

In accordance with Santa Fe standard practice, the gang was box-anchoring every other tie. In addition, for 60 ties in each direction from insulated joints, every tie is box-anchored.

The work of removing the old rails and inserting the welded strings was being done by a highly mechanized gang. The equipment and procedure mostly followed conventional practice, with the exception that the Model 40 Burro crane being used to set out the old jointed rails after the joint bars had been removed was doing the work with a 36-inch magnet instead of tongs. This unit was also throwing out and piling the old tie plates and other fastenings.

Use of the magnet for this work permitted the job to be done with only one man, the crane operator. By using the magnet for this purpose, the railroad was saving from six to eight men, explained A. K. Pottorff, division engineer.

● **What quality-control unit does.** The use of a quality-control unit with this gang was its most unusual feature. Personnel of this unit consisted of an assistant foreman, four trackmen and a machine operator. Its purpose is to make sure that all rail anchors are tight against the ties, that all ties at former joint locations are properly tamped, that all spikes are driven down and that the bolts at insulated joints are properly tightened.

The unit also replaces any broken anchors and bent spikes, makes spot checks of the gauge and picks up all new material that has been left behind.

The quality-control unit is equipped with all machines and tools needed to correct defective workmanship. These include a Racine Anchor-Tight machine for tightening anchors, a portable compressor carried on a push car, two hand-held pneumatic tamping tools, a hand-held pneumatic spike driver, a torque-indicating wrench for checking the torque of bolts at insulated joints, two track jacks and a track gauge.

The amount of work that the quality-control unit is required to do depends somewhat on the condition of the track, such as the presence of low or pumping joints in the old rail, Pottorff explained.

In addition to performing corrective work, the quality-control unit acts as a sort of watchdog over the quality of work performed by the rail gang. The system works like this: If the assistant foreman of the quality-control unit finds that the work done by the rail gang is consistently falling below the desired quality level, he registers a complaint with the assistant foreman of the offending unit in the rail gang. ■

Transit suppliers size up 1970

Builders will be working on new and old orders for 2,000 cars. For the decade, car orders will total around 8,000.

Suppliers of rail transit equipment will keep a hopeful eye this year on the progress of the $10 billion transit-aid bill now before Congress. But whatever happens in Congress, the carbuilders will be kept busy in 1970 fulfilling old orders and tooling up for new ones.

Present indications are that orders will be placed in 1970 for a total of 873 new cars, of which 443 will be commuter cars and 430 rapid transit units. Meanwhile, work will continue on an undelivered backlog of 621 commuter and 610 transit cars.

● **First of 8,000.** The projected 1970 car orders, while big in comparison with some recent years, are nonetheless only a drop in the brimming bucket of orders envisioned for the decade of the Seventies by Dr. William J. Ronan, president of the Institute for Rapid Transit (and chairman of New York's Metropolitan Transportation Authority).

Dr. Ronan predicts that 8,000 transit and commuter cars will be ordered during the decade—accounting for a large portion of the $17.6 billion in total mass transport expenditures which he sees for the next 10 years.

The pending $10-billion transit-aid bill would be a major source of funding. "One of the most important features of this new program," said Dr. Ronan, "is that it will provide the long-term guarantees of federal aid which states and cities need to embark upon the construction of new, modern mass transportation facilities which require some years to complete."

The compromise bill, known as the Public Transportation Assistance Act, will allow $3.1-billion of a total of $10-billion to be obligated at once for mass transportation for the first five years of a 12-year plan. Action is expected shortly on the Senate floor. The bill will go to the House in late January or early February.

In any case, mass transit appears to be assured of getting more federal money in the fiscal year beginning next July 1 than in the preceding year. Last week a bill went to the President appropriating $214 million for mass transit in fiscal 1971. While this is less than the $300 million originally authorized in the omnibus housing bill, it is a good bit more than the $175 million available in fiscal 1970. And there is always the chance that supplemental appropriations will raise the level up to or close to the original authorization.

● **San Francisco.** Well past the halfway point, the Bay Area Rapid Transit District is racing a mid-1972 deadline for complete revenue service on its $1.3 billion system. Street restoration above completed stations in downtown Oakland have been completed and installation of the electrical power rail is under way. Prototype train tests on the Southern Alameda County transit line will begin in August. The Rohr Corp. of Chula Vista, Calif., begins work this year on 250 BART cars.

● **New York.** It's going to be a busy year for the Metropolitan Transportation Authority as its multi-billion dollar master plan shifts into second gear. The end of 1969 saw construction starting on New York's 63rd St. tunnel under the East River—a key element in the MTA's plans. The contract awarded totaled approximately $69.5 million.

This year, the MTA expects approval on its proposed Manhattan-to-Kennedy Airport rapid-transit link: Once approved, the MTA will let out bid requests for some $50 million in track construction.

The inclusion of the New Haven commuter lines (between New York and New Haven, Conn.) into the MTA structure will, according to MTA spokesmen, launch an immediate priority modernization program. Under the preliminary take-over agreement between New York and Connecticut, this program will amount to $56.8 million. Half of the money is to come from a federal grant. The program will include 144 new cars, new stations; virtually a complete overhaul of the entire line. The entire modernization program, inclusive of the priority program, will amount to $80 million.

The MTA also expects to take over the Staten Island Rapid Transit (SIRT) by April. New York City's Board of Estimate has already cleared the way for the line to be purchased from the B&O for $3.5 million. Upon taking possession of the 14-mile line, the MTA will purchase 52 additional 75-ft, air-conditioned cars from the St. Louis Car Division of General Steel Industries. The 52 cars were included as an option in the 300-car, $54-million order placed with GSI in 1969.

The new cars will cost between $9-$10 million and are part of a $25 million improvement program for the SIRT to be implemented this year.

MTA will propose this year the allocation of funds from the New York transportation bond issue to help Penn Central buy 80 new commuter cars for PC's Hudson and Harlem divisions. This would require legislative approval in Albany, and while some legislators are known to be balking at the idea, chances for its acceptance look good.

No new car orders will be placed for the Long Island Rail Road this year. In 1969, the MTA placed an order with Budd for 620 new, air-conditioned Metropolitans. As of the end of December, 240 have been received. Most of the remaining 380 will be delivered by the end of this year.

The LIRR continues this year on its extensive electrification extension program. The MTA estimates that 45 new substations are required and 15 existing ones must be completely rebuilt. Of the 45 new substations, 21 are under contract; the most recent contract being awarded about two weeks ago—for 11 substations at $3.6 million.

Work will continue on the construction of new high-level platforms and a signal modernization program in newly electrified territory.

The New York City Transit Authority hopes to purchase another 300 cars this year, of the same type ordered from GSI in 1969. NYCTA estimates the new car expenditures at $65-$70 million.

Contracts for construction will be awarded for connections into the new 63rd St. tunnel (about $26 million) and work on the Queens super-express line (about $6 million). Design contracts will be let out for additional work on the Brooklyn extensions, two sections of the 2nd Ave. Subway, and the Queens super-express.

● **New Jersey.** Delivery on New Jersey's 105-car order for Erie Lackawanna from Pullman-Standard is scheduled to begin in April or May. All the cars should be received by June of 1971. For 1970, the New Jersey Department of Transportation plans to purchase 45 additional Jersey Ar-

1970 Commuter/Transit Car Market at a Glance

These new-car orders are likely to develop in 1970:

No. of cars	Type	Purchaser	For service on . . .
300	Rapid Transit	Metropolitan Transportation Authority (MTA)	New York City Transit Authority
144	Commuter	MTA	New Haven lines
144	Commuter	Southeastern Pennsylvania Transportation Authority	Penn Central (130) Reading (14)
80	Commuter	MTA/Penn Central	PC Hudson & Harlem divisions
52	Rapid Transit	MTA	Staten Island Rapid Transit
46	Rapid Transit	Port Authority Trans-Hudson	PATH
45	Commuter	State of New Jersey	Penn Central/Jersey Central
32	Rapid Transit	Massachusetts Bay Transportation Authority	MBTA Boston lines
30	Commuter	Chicago South Shore & South Bend	CSS&SB

. . . as work continues on this undelivered backlog:

No. of cars	Type	Purchaser	For service on . . .
380	Commuter	MTA	Long Island Rail Road
250	Rapid Transit	MTA	New York City Transit Authority
250	Rapid Transit	Bay Area Rapid Transit District	BART
123	Commuter	Chicago South Suburban Mass Transit District	Illinois Central
105	Commuter	State of New Jersey	Erie Lackawanna
100	Rapid Transit	Chicago Transit Authority	Kennedy/Dan Ryan median strip lines
10	Rapid Transit	Cleveland Transit System	Airport extension
8	Commuter	Rock Island	Rock Island
5	Commuter	Chicago & North Western	C&NW

Here's how it's starting to shape up for 1971:

No. of cars	Type	Purchaser	For service on . . .
160-170	Commuter	State of New Jersey	Erie Lackawanna
95	Rapid Transit	Philadelphia	Philadelphia rapid transit system
44	Rapid Transit	MBTA	Haymarket-North extension

row-type M-U cars for operation by Penn Central and Jersey Central over lines of the New York & Long Branch. To do this, it has applied for $10 million in federal funds, to be augmented by N.J. with $5 million.

This order is only part of a massive improvement for the NY&LB. Work may begin this year on $80 million worth of electrification, new stations, upgrading of track, and a new signal system. "The NY&LB improvements represent the most ambitious program we have," said Robert Day, director of the Division of Public Transportation. The money is expected to come from the federal government.

There is no prospect of New Jersey's continuing its second-hand car acquisition program. In 1969 it acquired 53 cars from Santa Fe for the EL and Penn Central, and 50 cars from Missouri Pacific, Rock Island, and Norfolk & Western for the Jersey Central. This step was an interim program for New Jersey; the new car purchases eliminate the need to continue the program. In 1971, New Jersey has tentative plans to order 160-170 new cars for the EL.

At least $1 million will be spent to upgrade EL stations this year, and a final report is expected on upgrading EL's electrification to make it compatible with PC's. Trenton Station is due for a complete modernization and more than $2 million will be spent for construction of a new commuter/Metroliner station at the intersection of PC tracks and the Garden State Parkway.

A joint study is expected this year concerning the capacity of Penn Station in New York. New Jersey maintains that it is under-utilized and is seeking to determine the number of passengers and trains the station can

(Continued on page 51)

UNITED STATES: Built for OHSGT, this LIM research rail car is expected to reach speeds of 250 mph.

TACV:

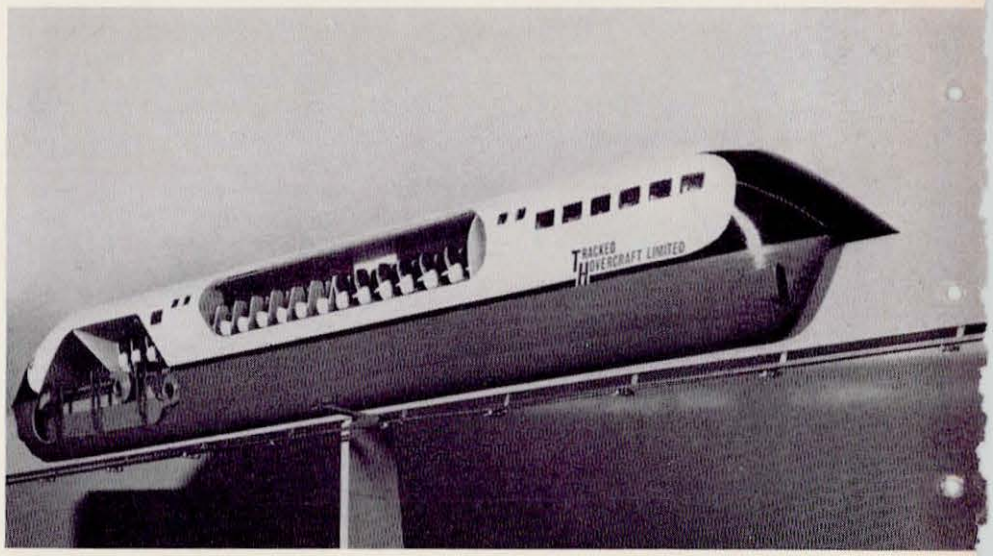
Tomorrow's mass transport

BY PHILIP HARRISON, Associate Editor

A new mode of ground transportation—the tracked air-cushion vehicle (TACV)—is coming closer to reality. In the U.S., two companies are vying for a DOT contract to build a jet-powered TACV research vehicle. Both vehicles are capable of modification for the linear induction motor (LIM)—the world's first large-scale prototype of which was unveiled last month on the West Coast. While commuter TACV's should be making the European scene within the next two years, at least one country—West Germany—is reported to be thinking of a multi-billion dollar TACV freight-hauling project that could be operational by the end of the decade.

● **TACV passenger service.** DOT's Office of High Speed Ground Transportation is interested in the TACV primarily as a new means of moving people. According to DOT statistics, about two-thirds of the U.S. population lives in urban areas—this figure to rise to 80% in 15 years. OHSGT sees TACV as an important stride in high-speed transportation between cities in high-density corridors.

To this end, DOT will be closely watching the results of British and French tests, and will be getting information from the Rohr Corp., which has bought U.S. rights to the French Aerotrain. But DOT has its own TACV research program under way and a contract for a full-size operational vehicle shou'd be awarded sometime this year. Competing for the contract are General Electric and Grumman Aerospace.

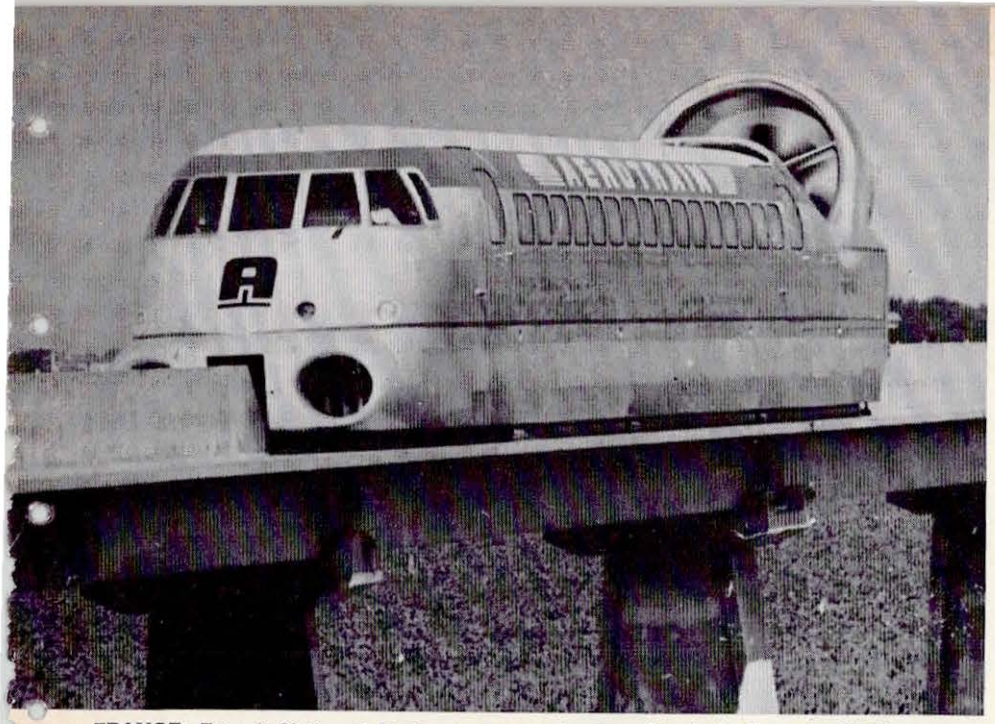


BRITAIN: A complete 10-15 ton version of this model will be tested this year.

The Grumman and GE designs are for either jet or LIM propulsion. Grumman uses two jet engines to supply the air cushions. With a third jet for propulsion, the Grumman model resembles a Boeing 727 converted into a rocket sled. With the LIM, the third engine is eliminated. The Grumman TACV would be 52 feet long, reaching speeds between 300 and 320 mph.

General Electric's TACV design has taken a hint from spacecraft research. It is divided into command, experiment and equipment modules. The modular design permits the substitution of a LIM motor system for a 10-passenger compartment. Without LIM it utilizes four turbofan jet engines—two for propulsion and two for the air cushion. Its speed ranges between 300 and 345 mph.

● **LIM who?** The linear induction motor is not as far-out as it sounds. In fact, it was first patented for rail passenger cars as far back as 1905; up until now, conventional propulsion has met all requirements. The first large-scale workable LIM was unveiled Dec. 9, 1969, in Los Angeles



FRANCE: French National Railways may order two Aerotrain lines in 1970.

vehicle?

when DOT and the Garrett Corp. rolled out what is claimed to be the world's first magnetically-powered research rail car.

The LIM has no moving parts, creates no air pollution, and makes little noise. Because of this, DOT has great faith in the motor as a solution to environmental problems.

In simplest terms, the LIM has two electro-magnets that are hung on opposite sides of a large central rail. An electric current is passed through the magnets. This central rail is then either attracted to the magnets or repelled. But since the rail is firmly secured to the ground and can't go anywhere, the magnets move. Since the magnets are located in the rail car, the car is pulled along for the ride.

The research LIM rail car was built for OHSGT under a $3.2 million contract by the Garrett Corp., an aerospace firm. The motor itself can provide 2500 hp continuously and 5000 hp for periods up to five minutes at 250 mph.

The Budd Co. supplied the high-speed trucks, which are equipped with disc brakes. Halibrand Engineering built the jet-like body, Philco Ford supplied the instrumentation trailer, and Dow Chemical manufactured the thin, central reaction rail. The rail is hollow, produced in 90-ft sections and then welded. It is 21 inches high, has a five-inch base and is installed down the middle of regular rail tracks.

Mating LIM to TACV could produce "a whole new breed of cat." DOT Under-secretary James M. Beggs has gone so far as to say that it could eliminate the dependence on wheels in ground transportation.

● **France is European leader.** The early advances in TACV research have come from Europe. And of all the countries involved, France is the leader.

So successful have test runs proved that French National Railways (SNCF) is showing an interest in TACV development. The company responsible for French TACV research —Societe de l'Aerotrain (SDA)—expects orders for two SNCF air-cushion lines to be announced this year. These are to consist of a 75-mile elevated double-track link between Paris and Orleans, and a high-speed link between Orly airport and downtown Paris. Surveyors are already preparing the Orly-Paris route, which could be ready within six months of the start of construction, according to the SDA.

If SNCF signs up, SDA believes other orders will follow. SDA says 21 countries are showing interest in French TACV work. These hopes came closer to fruition when the Rohr Corp. announced an agreement with SDA to manufacture and market the Aerotrain in the U.S.

The full-scale French TACV has already chalked up speeds of 180 mph (with a 150-mph cruising speed) in test runs at Orleans. This prototype is 84 feet long and 12 feet wide, with 80 seats in a 3-2 arrangement. A half-scale model, utilizing rocket propulsion, has reached speeds of 265 mph.

The full-scale vehicle is powered by two 1100-hp turbine engines which drive a reversible-pitch propeller. This mode of propulsion is to be kept for long-distance operations due to its claimed lightness and efficiency.

But the most likely power source for the projected Orly-Paris route will be the linear induction motor. SDA began testing prototype LIM's at the end of 1969.

● **Urba.** Another French company —Compagnie d'Energetique Lineaire (CEL)—is developing an intra-city TACV (the Urba) around linear induction. Two Urba eight-passenger vehicles have been tested at Lyons. They have operated both singly and coupled at speeds around 39 mph. CEL maintains that speed is not of prime importance for urban transit vehicles, hence the relatively low speeds. What is important, CEL claims, is that acceleration and braking are adequate for intensive service and frequent stops.

Ultimate CEL goal is a 30-passenger vehicle with a speed of 64 mph. Experiments with the full-scale vehicle are expected by the end of 1970. A 3.2-mile test track is now being completed at Lyons.

● **Piggyback TACV's.** Germany appears to be the first country pursuing a TACV operation as a freight mover. A task force of transport consultants and representatives of the German Federal Railway is reported to be studying a TACV for piggyback operations down the "spine" of West Germany from Hamburg to Munich —with subsequent spurs eventually linking Italy, France and the Belgian coast.

TACV trains on this line would be designed to piggyback trucks and containers at better than 250 mph. Costs of the project are estimated at a whopping $3-$5 billion. Should the project get the go-ahead, the first stretch of double-track could be operational by the end of the 1970's.

● **In Britain.** The British government-sponsored Tracked Hovercraft Ltd. (THL) is bidding for a transport contract between Heathrow airport and central London. Their research has given them confidence that they will be awarded the contract. Provided there are no problems, THL hopes to have a TACV reach 200 mph on a 4-mile test track by the end of the year. In 1971, they hope to extend the track to 10-miles and gradually step up the speed.

Three test vehicles will be running by the end of the year. Two are designed to test prototype linear induction motors. The third will be a full-size version of the proposed vehicle. ■

REWARD

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Monogram Industries, Venice Division
3226 Thatcher, Venice, Calif. 90291
Phone: (213) 870-8772

Circle 4 on coupon page 35

Helping keep Southern green

(Continued from page 25)

of painting the new Green Light words on Southern's rolling stock. In addition, the program was pushed in the pages of the company magazine "Ties," which goes to 30,000 people on the inside and 27,000 related readers on the outside. Southern employees got full coverage of the ad campaign going on in outside media. Then there was a deluge of employee posters, business cards with the green "O" and—those buttons.

The button distribution, which got off on a limited scale, soon had to be expanded, primarily because of the great employee demand, Southern says.

● **ID: One Green Light effort.** The Green Light campaign is undergoing refinement and expansion constantly. Included from the start were outsiders looking for plant sites. Recently, Southern expanded its new industrial-development campaign that indirectly projects and reflects the Green Light theme.

Southern now is telling cities along its tracks that it not only is able to provide good industrial sites but is willing to assist community groups in drafting an ID program from scratch. Southern is doing this through a professionally produced 16-mm film that railway staff people show or that communities can obtain free for their own use just by asking.

Titled "Industry—With A *Southern* Accent," the sound-and-color production runs 28½ minutes. J. L. Townshend, Southern industrial-development director, describes the film as a how-to-do-it guide for communities interested in attracting new industry and in encouraging the expansion of existing industries. Says Townshend: "No community need just sit by and wait for industry to come its way. Where industry locates can be, and often is, influenced by considerations which are well within the power of the community itself to control."

And that's precisely the message of the Southern film: A community is capable, with proper techniques, of guiding its ID destiny itself.

Portrayed in the film are many of the factors which industry leaders consider when they're searching for new plant locations, along with some of the basic things which communities can do to improve their chances of attracting industry.

The steps of community ID campaigns are clearly outlined: Analysis of local labor and natural resources; ability, or creation of the ability, to provide power, streets, water and sewer-

LETTERS

UMTA and its staff

Pittsburgh, Penn.

To the Editor:

In the Dec. 1 issue Frank Malone comments on the Federal Railroad Administration's small staff of 305 persons and calls the FRA a village within DOT.

Consider the Urban Mass Transportation Administration. With a budget of $175 million for FY1970, UMTA has a total of 57 employees! That figure is less than the smallest Assistant Secretary's staff in DOT (excluding Mayor Braman's recently reorganized office), some of which range up to 250. UMTA's Office of Research, with a FY70 budget of $30 million, has less than 10 professionals, and the ratio of money to professionals has been as high as $3 to $5 million per man in the past. By contrast, the DOD research program averages about $500,000 per man—one sixth of the UMTA figure. In the Office of Program Operations there are eleven professionals to administer a budget of about $140 million—approximately $12 million per man. Again, by contrast, one capital grant program in DOT, well below the $100-million level, is administered by no less than 800 people in Washington and in the field (UMTA has no field offices whatsoever).

Considering the voluminous demands on personnel of the seemingly endless budget process, liaison with other departments (principally HUD and Labor), development of a major legislative program, and administration of grants from previous years, the workload in UMTA presents an impossible administrative situation. I know from experience that it is a real nightmare for the Administrator, and it is only owing to the diligence of the staff that work gets out the door at all.

Surprisingly few persons in the mass transit industry (which has shown commendable energy and unity in regard to the long-term financing legislation) seem to be aware of this problem, or to care about it. In fact, no industry witnesses appeared before either House or Senate Appropriations Committees to comment on, and support, the UMTA budget. Compare this to the FAA budget, for example. Spokesmen for air carriers, manufacturers, general aviation, etc., delivered informed comment which undoubtedly assisted the Committees in their deliberations and, not insignificantly, showed that someone out there cared.

Langhorne Bond
Executive Director
National Transportation Center

The Mainstreeter

St. Paul, Minn.

To the Editor:

Thanks for the article with respect to railroad passenger deficits, and alluding particularly to The Mainstreeter case (RA, Dec. 15, p. 23).

As you know, I feel the decision of the Commission was a miscarrage of justice, and that the proponents who insist on compelling railroads to operate little used and not needed service are leading our companies down a path that will ultimately result in financial distress in a most serious way.

I think you have done the industry a tremendous service, and I wish to thank you, Gus Welty and Frank Malone for this most excellent presentation of our case.

Louis W. Menk
President
Northern Pacific

We say it respectfully. Old, because the Ohio Brass hook-type coupler was patented in 1906; pro, because O-B offers the rail and transit industries over 60 years of experience in coupler design. It's difficult to get more professional than that.

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FRANK MALONE

WATCHING WASHINGTON

KATY MISSES THE BLACK, AGAIN. There is a hint in an ICC order authorizing Missouri-Kansas-Texas to issue a one-year promissory note for $1.8 million. The order says something about an estimated 1969 net-income deficit of $3.8 million. There is confirmation in a phone talk with Katy's president. Total 1969 revenue was up "slightly" from the $64.6 million of 1968. John W. Barriger says. But that's less than the $67 million needed to break even. It's less than the $70 million "we had hoped for," Barriger says. And it's less than the $72-$75 million Barriger says would have been gained—if some unforeseen events had not interfered.

THE REASONS WOULD BE WEAK FOR A HEALTHY RAILROAD. But for a carrier still fighting back from years of malnutrition, the weakest drop in traffic means further hunger. Katy lost $3 million in export grain traffic because of a strike at Texas gulf ports, Barriger says. The wheat crop itself failed expectations, he adds. There was the breakdown of a "very large" coal mine at West Mineral, Kan. Tight money cooled construction and Katy's building-materials traffic. The railroad had to keep operating a losing Texas branchline that Katy had hoped to abandon in 1969. And, "We had hoped for easier money in the third quarter," Barriger says. Put these together, and you get enough to wreck the black-ink forecasts Barriger made at a Katy board meeting in May. There is, however, another factor of a different kind.

"WE'RE RE-BUILDING A RAILROAD, not just maintaining one," Barriger says, with much emphasis. "What we're doing now is paying for 10 to 20 years of deferred maintenance." In 1969, Katy spent $11 million on track alone. The spending goes on despite Barriger's understatement: "We don't have much in the way of capital." Indeed, the ICC order said Katy's working-capital deficit is about $11 million. Nevertheless, Barriger says, "We'll do more when the Treasury situation eases."

"THE BEST IN THE COUNTRY," however, is how Barriger describes his equipment situation. This part of Katy's renewal is complete, he says. "Two thirds of the railroad's hauling and pulling capacity is in new units," Barriger boasts. A survey of shippers, he adds, causes "no pessimism." The equipment is there. The track is getting there. The business apparently will be there. So, Barriger says, 1970 could be the year. The last one for Katy was 1961, four years before Barriger moved in.

age; development of a clear, concise and accurate idea of exactly what a community has to offer, so that industrial prospects can be dealt with in a clear, concise and accurate manner by community representatives.

The film also shows communities some of the methods used by industries in their search for sites. For example, the work of an industrial-site scout is portrayed. The film shows how a scout sizes up a community's residents and the services they provide.

In addition, the film shows examples of communities along Southern routes that has successfully proceeded through the steps described.

For one example, Valdosta, Ga., the script says the ID program centers on the chamber of commerce and is composed of prominent business leaders—bankers, insurance men, realtors and utility managers: "They are men who place the town's future ahead of their own business interests. They have the *responsibility* and the *authority* to promote their town."

● **Promoting awareness.** Throughout, the Southern film attempts to make community representatives aware of what they can do as civic leaders and of the mistakes they can avoid in bringing industry to their area.

The film emphasizes the idea that a town can gain needed industry without losing its people, that ID properly pursued can keep the town together and make it grow. As the script says:

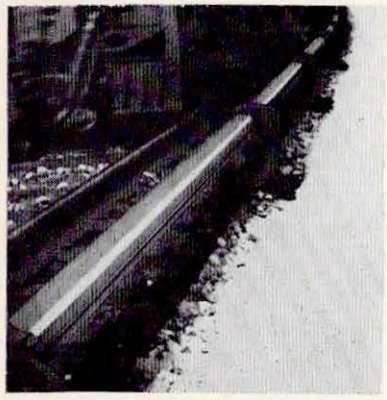
"As the South adds new industrial tools to its traditional agricultural skills, people who need help in adjusting to the changed environment can be reached.

"No one need migrate away from the land of his heritage. Instead, towns large and small have today an unprecedented opportunity to shape a new heritage for themselves and the South—a heritage that keeps and honors its proud traditions—while making way for the industrial expansion of tomorrow."

The film was made by Georgetown Productions, Inc., of Washington. Southern is pushing the film with the help of Modern Talking Pictures Service, with offices in Atlanta, Charlotte and Washington; the Farm Film Foundation, Washington; chambers of commerce; state and local ID groups; and local TV stations.

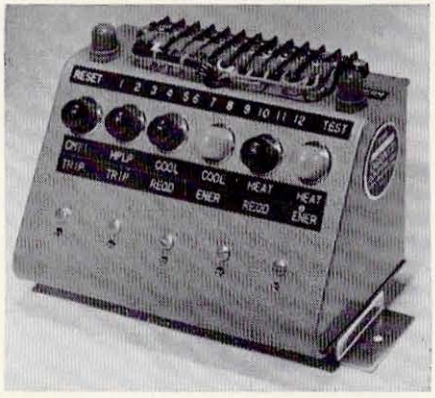
The film is adequately—but not overwhelmingly—decorated with shots of Southern equipment with the green-filled "O" standing out. Indirectly, without using the exact words, the film clearly shows how communities can cut the waste from their ID efforts. And because of that, Southern implies, the railway will be able to provide distribution of the community's products—with a green light all the way. ■

NEW PRODUCTS REPORT



Third-rail guard (RA-1)

A bright orange, snap-on shield of tough, weather-resistant, rigid vinyl is now used successfully by Penn Central to replace the three-piece wooden covers previously installed to guard 600-volt-DC third rails. Penn Central reports that the new 9-ft., 6.5-lb. sections of the shield require less than a minute for installation by only one man. Wooden guards constitute a fire hazard. The vinyl will not support combustion. *Stokes Molded Products, Division of ESB Inc.*

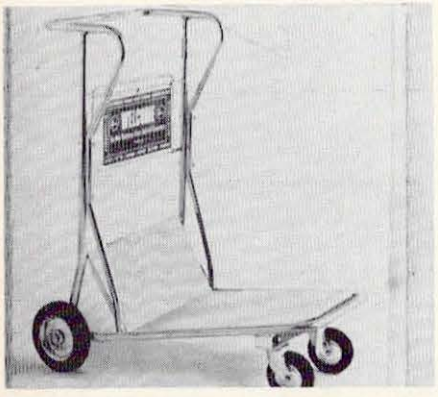


Failure indicator (RA-2)

The Air-Conditioning Failure Indicator, now on three Penn Central passenger cars, is said to quickly indicate cause of an air-conditioning failure occurring on cars while in service. Six separate lights indicate shutdown by H-L pressure switch; shutdown by CMTI switch; cooling required because temperature is +74 deg F; cooling control circuits properly energized; heat required because temperature is below 70 deg F; heat control circuit to overhead heat properly energized. *Ogontz.*

Ballast equalizer (RA-3)

This view shows the first Model B-17 Ballast Equalizer to be manufactured at the plant of Tamper, Inc., at Columbia, S. C. Earlier machines were assembled utilizing parts supplied by Kalamazoo Manufacturing Co., which has been absorbed by Tamper. The unit shown is equipped with new auxiliary snowfighting devices, including snowplow blades and rotary snow-auger attachment. A heavy-duty, rotary brush cutter is also available. *Tamper, Inc.*



Luggage carrier (RA-4)

A new luggage carrier has been designed to speed and simplify baggage handling. The base, 20 in. by 30 in., is slanted for efficient stacking and is roomy enough to hold up to 400 lb of luggage. Large rear wheels, 8 in. by 1¾ in., provide easy maneuverability under the heaviest loads or over irregular passageways. The frame is made of 1-in. chrome-plated tubular steel and the deck is made of 16-gauge sheet steel. *Technibilt Corp.*

Shunting system (RA-5)

A new solid-state shunt system for use on vehicles equipped with rail-road-conversion units is available. During rail operations, four spring-loaded shunting brushes slide atop the rail to actuate track circuits and highway crossing signals. Brush wear is adjusted and brush "blocks" are easily replaced when needed. A monitor system indicates by a "beep beep" signal and/or dashboard red light whenever the track circuit is not shunted. *W. T. Cox Company*

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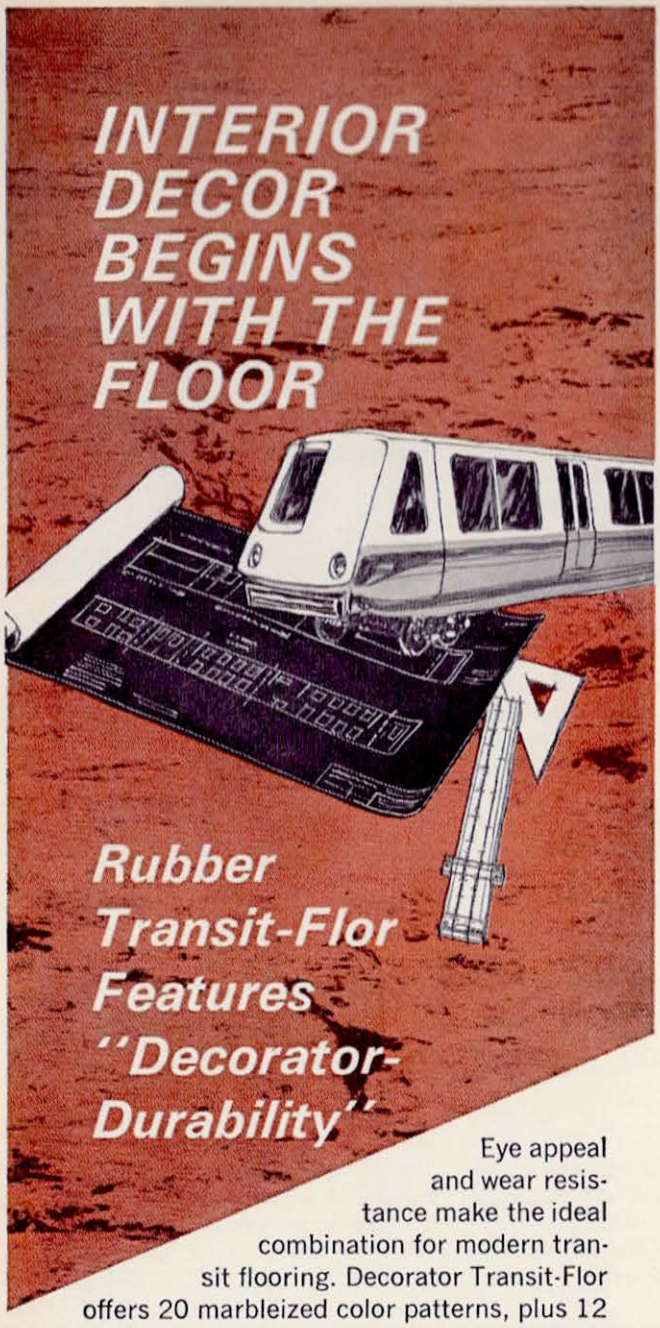

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Circle 12 on coupon page 35

TRANSIT ROUNDUP

SKYBUS BOUNCES BACK: The Urban Mass Transportation Administration is still very much interested in the Pittsburgh Skybus and plans to invest $1.6 million to help determine its technical and economic feasibility. "We will provide the full $8.7 million requested by Allegheny County," said UMTA administrator Carlos Villarreal, "once we are assured the technical problems can be solved." In an apparent reversal of reported comments made in November Villarreal said that "Secretary John A. Volpe and myself firmly believe the decision on the type of system selected for Allegheny County is reflected in the voice of its elected officials, and from private, public and business sectors" (RA, Dec. 1, p. 38).

DUAL-MODE TRANSIT PROPOSED IN MILWAUKEE: Milwaukee County has accepted a proposal by Rep. Henry S. Reuss (D.-Wis.) to develop a transit system whereby electronics would replace the drivers of cars and buses along special transitways. Estimated to cost $10-$15 million over three or four years, this dual-mode concept would allow cars and buses to be operated via driver off the electronic transitway. Once on, the vehicle would receive power, guidance and speed control from an electric rail. American Motors is reportedly willing to develop the vehicle and Allis-Chalmers is reported ready to develop the guidance system. The county has already asked for state and federal funds.

RECENT TRANSIT CONTRACTS: General Railway Signal will supply 10 sets of high frequency cab signal and speed control equipment to Pullman Standard for installation on the new rapid transit cars for the Cleveland Transit System's Hopkins International Airport line.

The Massachusetts Bay Transportation Authority has authorized a $1,137,000 contract award to L.H. McIsaac Co. for construction of a new southbound Essex Station entrance on the easterly side of Washington Street at Boylston and Essex Streets. The entrance must be relocated because of the Boston Redevelopment Authority's plans to relocate Boylston Street. BRA will reimburse MBTA for 69% of the total contract price.

LIRR REPORTS RECORD DEFICIT: Commuters using the Long Island Rail Road may be faced with a fare increase this year. Dr. William J. Ronan, chairman of the Metropolitan Transportation Authority, said that the LIRR would wind up 1969 with an operating deficit of more than $16 million—reportedly the biggest loss in the line's history. Labor costs for the coming year would be one determinant factor in a possible increase, Dr. Ronan noted. He said that labor accounts for three-quarters of the line's operating expenses. In an effort to reverse the deficit, the MTA has filed a complaint with the ICC over freight revenues shared with other lines when freight is transferred to LIRR tracks. In the first nine months of 1969, according to the LIRR, freight produced only about 11% of the line's $66.7-million operating revenue, but accounted for about half of its $13.1-million deficit through September.

The Junior Foreman From Tamper.

"Electromatic" quality surfacing and lining with one operator.

The new Junior Foreman is a surfacing and lining attachment for the Junior and Switch Electromatic Tampers that makes these machines the most versatile and economical on the market.

It was developed to meet the needs of the railroads for an economical medium-production tamper. With only one operator, the machines can tamp, lift, line, spot and joint peak under almost all track conditions.

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PEOPLE IN THE NEWS

O. C. Putsche
M-K-T

Donald L. Manion
MP-T&P

CHESAPEAKE & OHIO—BALTIMORE & OHIO.—John Heisner, an editor of the Rochester (N.Y.) Democrat and Chronicle, has joined the C&O-B&O as assistant manager of communications services, Public Relations and Advertising Department.

CHICAGO SOUTH SHORE & SOUTH BEND.—Edward H. Bross, vice president and comptroller, named vice president-finance. **Raymond J. McGee** elected comptroller. Mr. McGee was formerly manager of costs and budgets, **Chesapeake & Ohio/Baltimore & Ohio,** Baltimore.

GREAT NORTHERN.—Donald B. Wilder, dispatcher, Montana division, named supervisor of train and power operations, St. Paul.

Peter D. Phillips, assistant trainmaster, Minneapolis, named trainmaster, Fargo, N.D., to succeed the late **Robert D. Nelson.**

LOUISVILLE & NASHVILLE.—F. J. Flaspoehler, manager, methods and procedures, named manager-quality and cost control, Louisville. **H. C. Holderfield,** and **K. H. Dotson,** industrial engineers, named assistant manager-information services and assistant manager-production systems, respectively, both with headquarters in Louisville. **O. E. Smith,** staff assistant to division manager, motive power, South Louisville shops, becomes assistant manager-production systems, Louisville.

C. C. Vaughn, general western traffic manager, Chicago, retired Dec. 31, 1969, after more than 44 years of service.

Russell T. Wigginton, transportation engineer, named assistant manager data control, Louisville.

Harold L. Endicott, assistant superintendent, Birmingham division, Birmingham, Ala., named superintendent, Cincinnati division, Latonia, Ky., to succeed **M. R. Black,** retired. **George H. Moore, Jr.,** assistant superintendent, Cincinnati division, Cincinnati, replaces Mr. Endicott. **R. G. Ill,** assistant superintendent, DeCoursey Yard, replaces Mr. Moore, and in turn is replaced by **A. B. Noonan,** assistant superintendent, New Orleans.

C. E. Freeman, assistant terminal trainmaster, Atlanta, Ga., becomes terminal trainmaster, New Orleans. **A. E. Dorton,** terminal trainmaster, Louisville, transferred to Atlanta. **C. H. Tatum,** assistant terminal trainmaster, Louisville, succeeds Mr. Dorton.

MILWAUKEE.—Fritz H. Miller, special assistant to vice president-finance and accounting, promoted to assistant comptroller, Chicago.

MISSOURI-KANSAS-TEXAS.—O. C. Putsche, general manager, appointed general manager of the newly established management information services department, with headquarters remaining in Denison, Texas. Mr. Putsche's successor is **Martin F. Rister,** superintendent, Southern division, Waco, Tex., who in turn is succeeded by **Thomas G. Todd,** superintendent, Northern division, Parsons, Kans. **Morris D. Woodroof,** superintendent, air equipment-diesel operation, replaces Mr. Todd. **Q. W. Schroer,** agent-yardmaster, Oklahoma City, Okla., named terminal superintendent, St. Louis. **L. H. Keele,** superintendent-terminals, Parsons appointed trainmaster, Franklin, Mo. **Gene Olzawski,** terminal superintendent, Baden, Mo., becomes trainmaster, Parsons.

MISSOURI PACIFIC.—C. E. Satterfield, trainmaster, **Texas & Pacific,** Abilene, Tex. named trainmaster, Illinois division, **Missouri Pacific** and **Missouri-Illinois,** Chester, Ill., succeeding **R. L. Brewer,** transferred. Mr. Satterfield's successor is **R. F. Kennedy,** trainmaster, **MP-T&P,** Hearne, Tex., who in turn is succeeded by **J. M. McJannet. J. F. Dollins,** assistant general passenger agent, **MP-T&P,** Kansas City, retired Nov. 30, 1969, after more than 43 years' service. **J. E. Laseter,** assistant district superintendent stations and claim pre-

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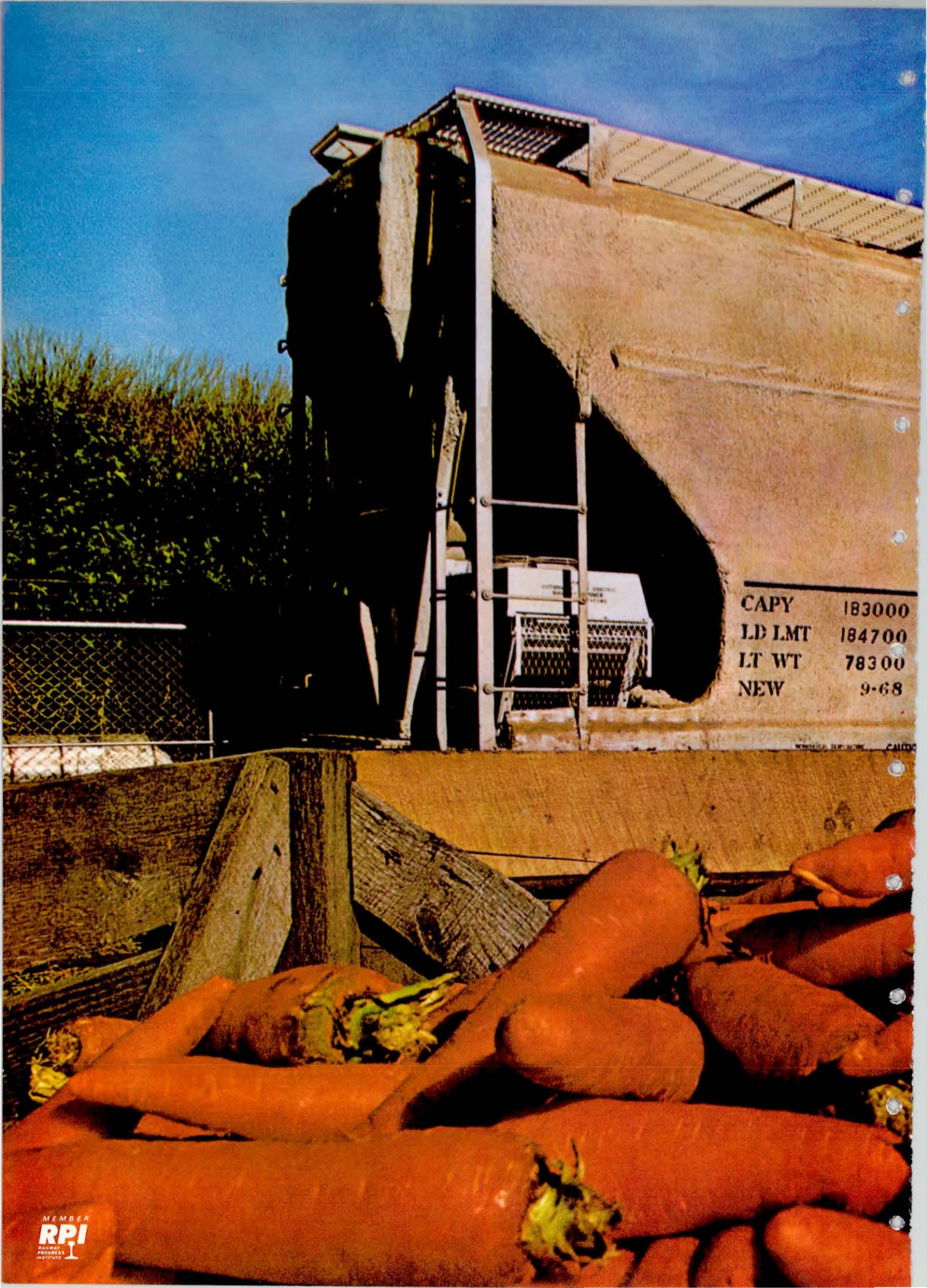
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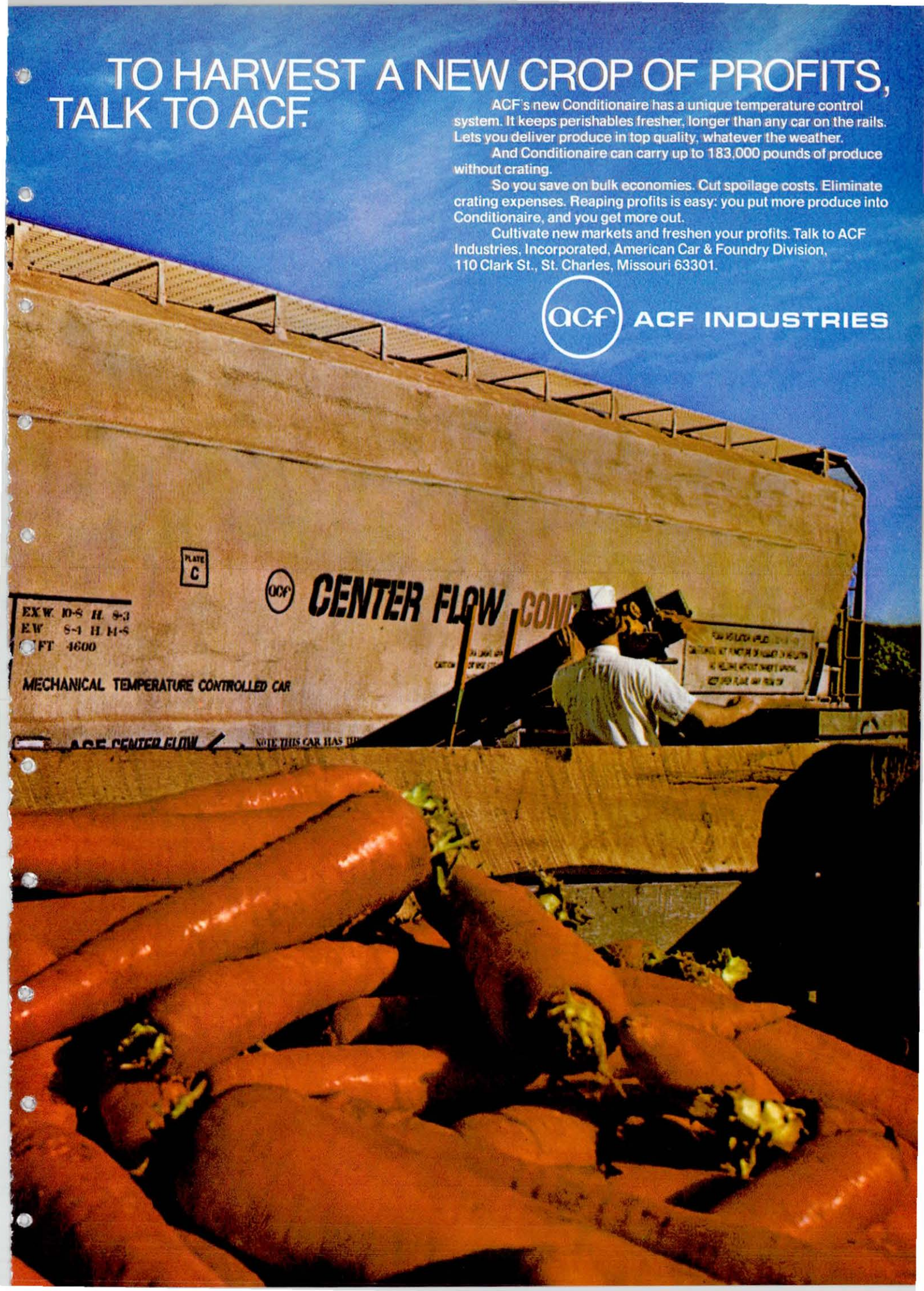

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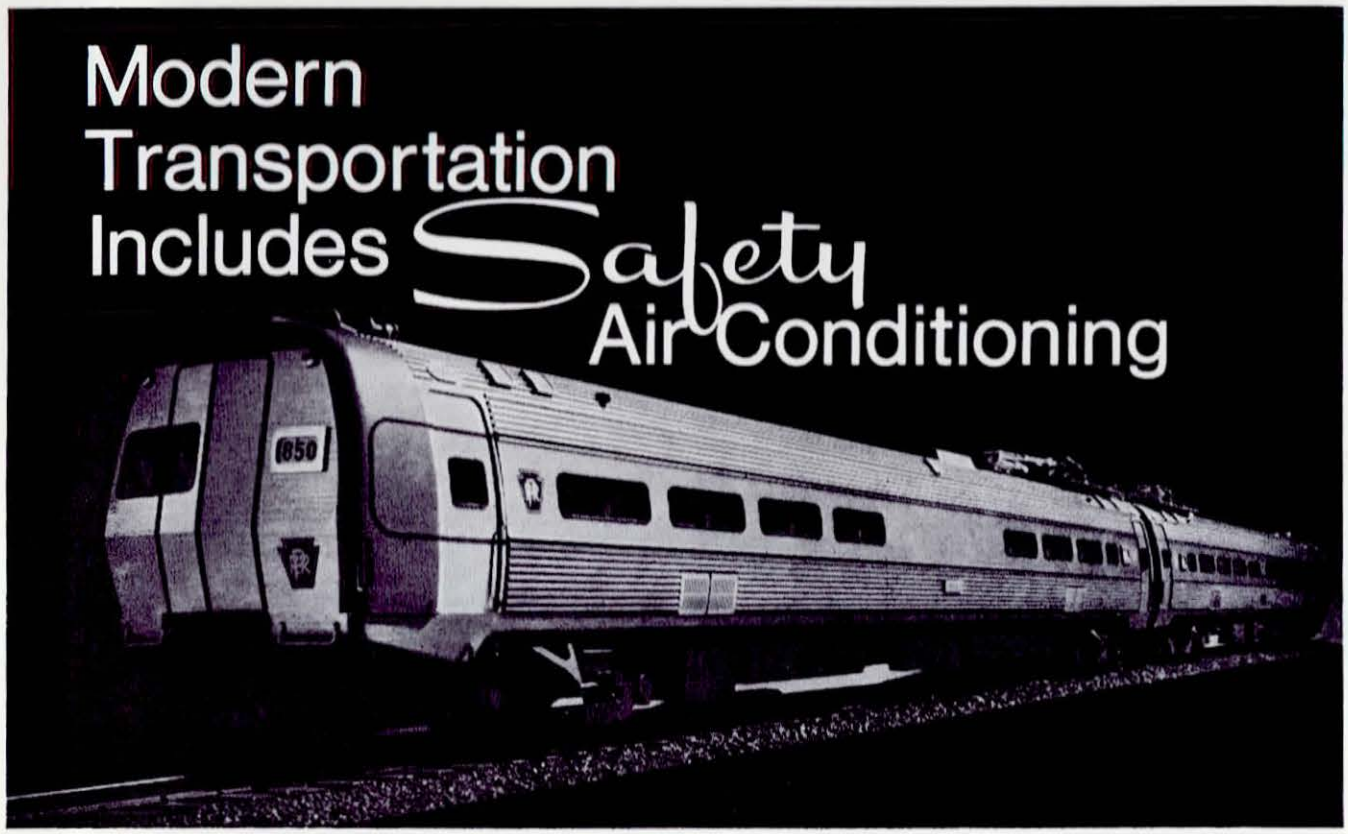

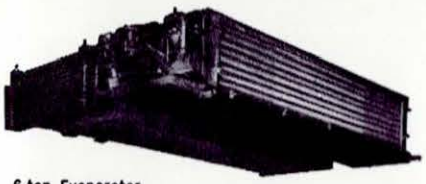

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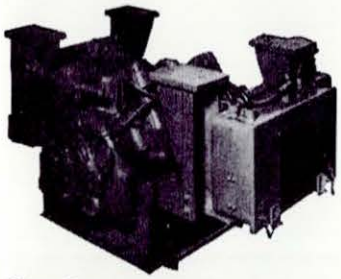
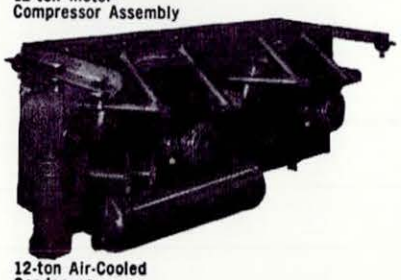


12-ton Motor-Compressor Assembly



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vention. Texas District, **T&P,** Fort Worth, Tex., appointed district superintendent stations and claim prevention, Eastern District, **MP,** Little Rock, Ark., succeeding **F. J. Ronk,** named district coordinator management information division-installations, **MP-T&P** (RA, Dec. 15, p. 40). Mr. Laseter's successor is **B. F. Johnson,** assistant district superintendent stations and claim prevention, Western District, **MP,** Kansas City, who in turn is succeeded by **M. C. Cantrell. D. E. Graham,** assistant terminal manager, St. Louis Terminal division, **MP,** St. Louis, becomes assistant superintendent stations and claim prevention, **MP-T&P,** St. Louis, to replace **W. C. Watley, Jr.,** transferred. **O. S. Koehler** succeeds Mr. Graham. **C. A. Kastner** appointed terminal manager, **MP** and **Missouri Pacific Truck Lines, Inc.,** with headquarters in San Antonio, Tex., **J. C. Herring** named terminal manager, **T&P,** Tulsa, Okla.

MISSOURI PACIFIC-TEXAS & PACIFIC.—Donald L. Manion, assistant vice president-operation, **MP,** elected vice president-operation, **MP-T&P.** Mr. Manion is also executive vice president, **Chicago & Eastern Illinois.**

E. E. McDaniels, assistant traffic manager, Houston, named traffic manager, Washington, D.C.

NATIONAL COAL POLICY CONFERENCE, INC.—Joseph E. Moody retired on Jan. 1 as president, the position he has held since the organization was formed in 1959. He has been succeeded as chief administrative officer by **W. W. McClanahan, Jr.,** vice president, who has been named executive vice president.

NORFOLK SOUTHERN.—Claude M. Altman elected assistant comptroller, succeeding **Aaron Register,** who resigned Nov. 30.

Forrest D. McMillan, district sales manager, Raleigh, N. C., promoted to regional sales manager, Richmond, Va., succeeding **Joseph L. McGhee,** who retires Feb. 1. **William E. Robertson** succeeds Mr. McMillan at Raleigh.

NORTHERN PACIFIC.—Has reorganized the industrial development department into two sections, industrial development and real estate. **D. R. Hamm** appointed director, industrial development, **R. A. Juba,** director, real estate; **J. J. Gordon,** manager, industrial development **J. H. Ilkka,** manager, leases and contracts, all with headquarters in St. Paul. **R. D. Larson** named manager, real estate, and **F. R. Erwin,** manager, industrial development, both at Seattle.

PENN CENTRAL.—Clifford W. Owens, general superintendent transportation, New Haven Region, at New Haven, Conn., appointed general superintendent transportation, Central Region, Pittsburgh, succeeding the late **James A. Foshee.**

Jurisdiction of the Toledo and Cleveland operating divisions have been transferred to the vice president and general manager at Chicago. Diivision offices, which now comprise the Lake Region, will continue to operate from their present locations at Toledo and Cleveland. Present freight sales, industrial development, real estate and law offices wll remain at Cleveland and will not be affected by the change in operating administration.

Downing B. Jenks
T&P

John H. Lloyd
T&P

Gerald D. Scheer
UP

Warren E. Miller
UP

TEXAS & PACIFIC.—Downing B. Jenks, president, **Missouri Pacific** and **T&P,** elected chairman of the board and chief executive officer, **T&P,** to succeed **J. T. Suggs,** who retired Jan. 1 after more than 25 years of service. Mr. Suggs will continue as a member of the board. Mr. Jenks' successor as **T&P** president, is **John H. Lloyd,** executive vice president, **MP-T&P,** and president, Chicago & Eastern Illinois.

UNION PACIFIC.—Gerald D. Scheer, division engineer, Los Angeles, named to the newly created position of director of engineering, Land Division, Omaha.

Warren E. Miller trainmaster, North Platte, Neb., appointed assistant director-COIN, with headquarters in Omaha.

OBITUARY

Joseph D. Murphy, 78, a member of the **Chicago Transit Board** since 1958 and vice chairman of the investment banking firm of Stifel, Nicolaus & Co., died Dec. 11 at Presbyterian-St. Lukes hospital.

Robert D. Nelson, 40, trainmaster, **Great Northern,** Fargo, N.D., died Dec. 6, 1969.

Albert T. Peagan, 57, vice president, **Ford, Bacon & Davis** and a former vice president, **New Haven,** died Dec. 22 at his home in Weston, Conn.

This announcement appears as a matter of record only.

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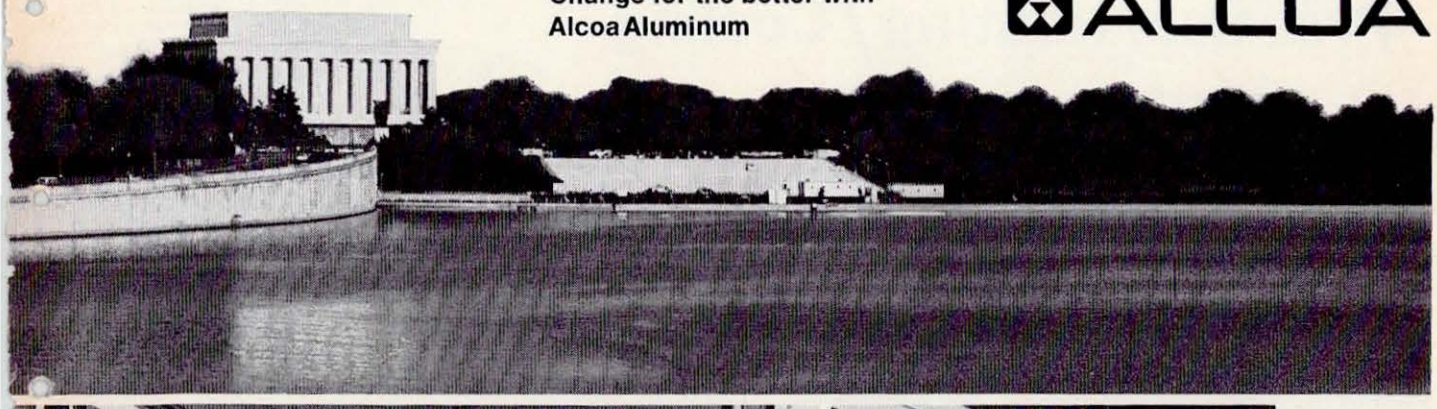

Photographs taken in Metro prototype car.

M
metro

Circle 18 on coupon page 35

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Kerite

John M. Gleason
GATX

William K. Quinby
GATX

James A. Van Sant
GSI

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Circle 19 on coupon page 35

SUPPLY TRADE

William A. Edwards, vice president in charge of railroad sales, **Kerite Co.,** has been appointed vice president and general sales manager, with headquarters as before at New York. He will supervise marketing and sales to railroads, as well as to utilities and the general industrial field.

John M. Gleason and **William K. Quinby** have been elected vice presidents, **General American Transportation Corp.** Mr. Gleason will continue to serve as general sales manager for freight cars in the **GATX Transportation Division,** and Mr. Quinby will continue as the division's manager of tank car manufacturing and fleet maintenance and as manager of the Sharon, Pa., plant.

James A. Van Sant has been appointed president, **Flexo-O-Lite Division, General Steel Industries, Inc.,** St. Louis, Mo., succeeding **J. Richard Beard,** resigned, (RA, Dec. 22/29, 1969, p. 84). Mr. Van Sant had been executive vice president, Flex-O-Lite. Mr. Beard will continue as a consultant to the division.

White Manufacturing Co., Indianapolis, has named **Modern Supply Co.,** Chicago, as manufacturers' representative in the Chicago area for their line of propane and natural gas railroad switch heaters.

Harold Eyer, N. H. Nordby, Don C. Elhoff, and **I. S. Yates** have been appointed regional managers of sales, **CF&I Steel Corp.,** with headquarters in Denver. Messrs. Eyer, Nordby and Elhoff were formerly district sales managers, Phoenix, Ariz., Kansas City, Mo., North Brunswick, N.J., respectively. Mr. Yates was manager-wire rope sales, Denver. **J. A. Bole,** general manager-field sales, and **W. D. Dreher,** vice president-commercial, will also serve as regional managers.

Dale E. Ogle, vice president-corporate development, **Evans Products Co.,** has been named vice president and assistant to the chairman of the board.

Headquarters of the **Equipment Leasing Division, T.O.F.C., Inc.,** were moved from Chicago to Atlanta, effective Jan. 1. **Gordon C. Miller,** director of leasing development, moved to Atlanta as vice president of operations and sales of the division. **Robert A. Inghram** also moved from Chicago to Atlanta to become Mr. Miller's assistant. **Rail-Trailer Co.,** which owns 50 per cent of T.O.F.C. operates the Western Union computer franchise in Atlanta and the company maintains a computer center there. T.O.F.C. leasing operations, including billing are to be computerized.

David G. Bassitt has been named market development specialist, Transportation Equipment Division, **Butler Manufacturing Co.,** Minneapolis, Minn. He was formerly project administrator, Aerospace Division, **Honeywell,** Minneapolis. **Thomas C. Olson,** design development manager for all stainless steel equipment manufactured at Butler's St. Paul plant, has been promoted to manufacturing planning manager, Transportation Equipment Division.

MARKET OUTLOOK

CARLOADINGS

Loading of revenue freight in the week ended Dec. 27 were not available as this issue of Railway Age went to press.

REVENUE FREIGHT CARLOADINGS

Commodity	Dec. 20 week	Preceding week	Per cent change
Grain	27,892	27,678	+ 0.8
Farm products	24,035	26,885	—10.6
Metallic ores	27,806	27,019	+ 2.9
Coal	108,331	111,117	— 2.5
Crushed stone, gravel & sand	23,042	24,358	— 5.4
Nonmetallic minerals	8,722	9,010	— 3.2
Grain mill products	21,579	21,411	+ 0.8
Food & kindred products	25,162	25,561	— 1.6
Primary forest products	26,663	23,856	+11.8
Lumber & wood products (except furniture)	15,380	14,869	+ 3.4
Pulp, paper & allied products	24,733	25,209	— 1.9
Chemicals & allied products	28,149	28,219	— 0.2
Petroleum products	11,153	11,459	— 2.7
Stone, clay & glass products	18,177	17,625	+ 3.1
Coke	8,844	8,921	— 0.9
Metals & products	27,533	27,081	+ 1.7
Motor vehicles & equipment	21,197	25,270	—16.1
Waste & scrap materials	14,837	15,120	— 1.9
Forwarder & shipper assn. traffic	6,844	7,057	— 3.0
All other carloads	68,359	68,475	— 0.2
LCL traffic	1,743	1,697	— 2.7
Total cars loaded	540,181	547,897	— 1.4

CUMULATIVE TOTAL, 51 WEEKS	1969	1968	1967
	27,910,187	27,884,562	27,686,551

IN CANADA

Cumulative	Revenue Cars Loaded	Total cars Rec'd. from Connections
Dec. 7, 1969	3,403,176	1,145,469
Dec. 7, 1968	3,536,374	1,155,872

FREIGHT-TRAIN CARS

● *Chesapeake & Ohio/Baltimore & Ohio.*—Will acquire 3,000 new freight cars as part of a $55-million equipment program that also calls for 75 new locomotives (see below). Cars will include 900 100-ton gondolas for carrying steel products, 2,000 100-ton open-top hopper cars for coal, and 100 100-ton, 2,700-cu-ft-capacity covered hopper cars for dry bulk products.

● *Trailer Train.*—Ordered 569 new cars as follows: ACF, 25 89-ft, 4-in. all-purpose cars; Bethlehem Steel, 220 89-ft, 4-in. standard level, 123 68-ft, 100-ton bulkhead, and 1 68-ft, 100-ton steel cars; Pullman-Standard, 200 89-ft, 4-in. standard-level cars. This brought TTX purchases of new cars since Jan. 1, 1969, to 5,971. On Dec. 16, 1969, TTX had 54,466 cars in service and on order.

LOCOMOTIVES

● *Chesapeake & Ohio/Baltimore & Ohio.*—Will acquire 75 new diesel locomotives. Included will be 20 six-axle high-horsepower units, 25 four-axle high-horsepower units, and 30 four-axle intermediate-horsepower units. Builders have not been specified.

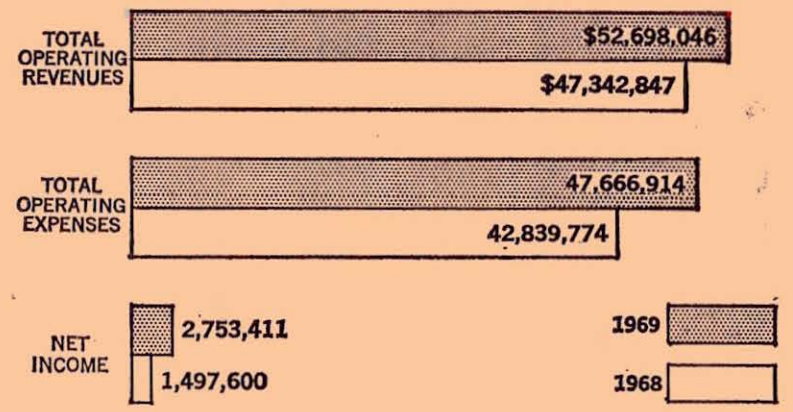
CAPITAL EXPENDITURES

● *Great Northern.*—Capital improvements program for 1970 will involve expenditure of $40.9 million. GN's $30.4-million equipment program will include acquisition of 20 diesel-electric units, 1,400 freight cars (500 100-ton covered hopper cars, 450 50-ft box cars, 150 100-ton bulkhead flat cars, 200 70-ton gondolas, 100 70-ton insulated box cars) and 25 cabooses. Roadway improvement program, totaling $10.5 million, will include installation of 50.1 miles of new rail (45 miles continuous welded rail), installation of CTC on 112.5 miles of line, construction of new TOFC/COFC facilities at St. Paul, construction of new diesel servicing facilities at Seattle and installation of hot box detectors at 10 mainline locations in North Dakota and Montana.

● *Illinois Central.*—$45-million equipment program for 1970 will include acquisition of 25 diesel-electric units and more than 2,700 new freight cars. Included in the freight-car program will be 1,400 box cars, 100 bulkhead flat cars, 300 covered hopper cars and 50 cabooses. Also planned for '70 are heavy repairs to 5,000 freight cars and complete rebuilding of 50 GP-type locomotive units.

● *Santa Fe.*—Capital improvement program for 1970 for Santa Fe Railway and subsidiary companies will total approximately $170 million, down from $190 million in 1969. Expenditures now authorized for the railway total $82 million for this year, down from $105 million in '69.

FREIGHT FORWARDERS—SELECTED STATISTICS
(SECOND QUARTER 1969 AND 1968)



Source: Bureau of Accounts, ICC. Compiled from 66 quarterly reports of forwarders with annual gross revenues of $100,000 or more.

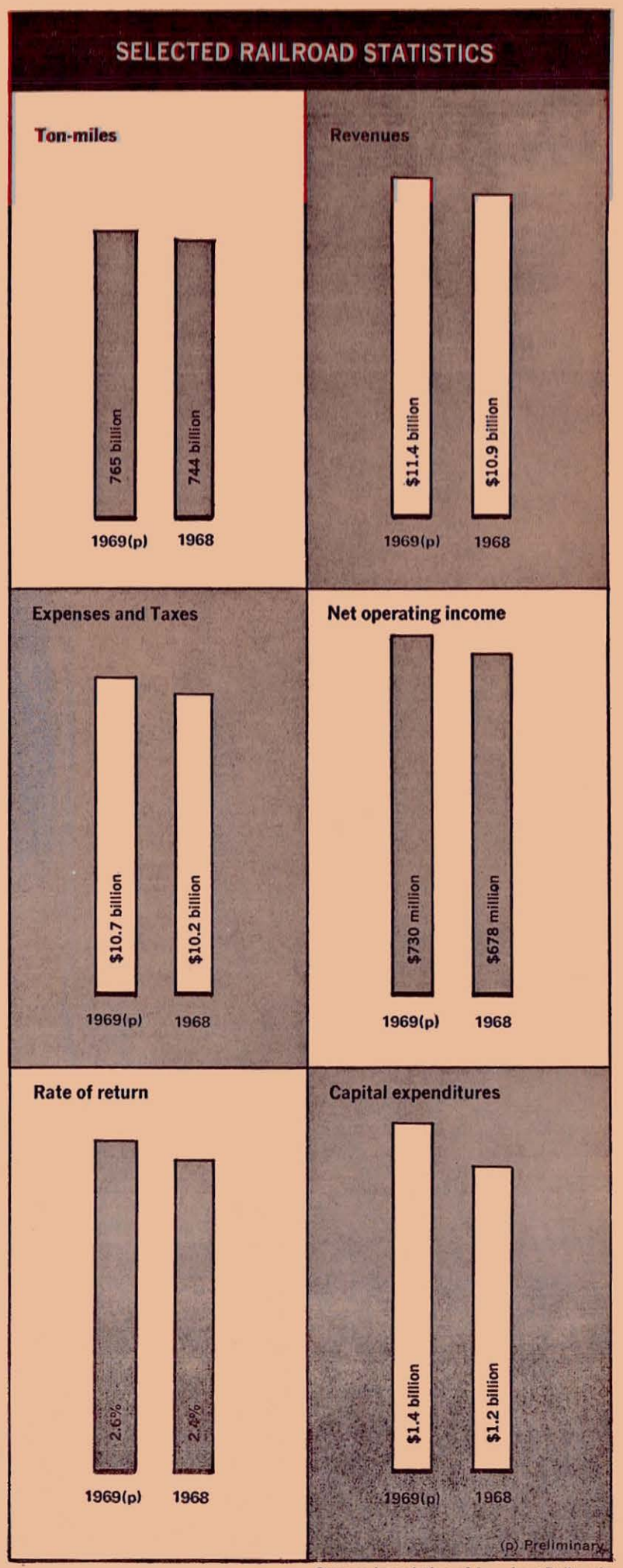
ESTIMATED NATIONAL TRANSPORTATION BILL
(billions of dollars)

	1963	1965	1967	1968(p)
Passenger bill	64.8	78.1	85.3	96.7
Freight bill	55.8	64.2	69.9	74.8
TOTALS	120.6	142.3	155.2	171.5
Adjustments*	.1	—.6	—.2	—.5
ADJUSTED TOTALS	120.7	141.7	155.0	171.0
Gross national product	590.5	684.9	793.5	865.7
Transportation as a percentage of gross national product†	20.06	20.06	18.94	19.17

(p) Preliminary.
*Government expenditures not included in passenger or freight transport outlays, less duplications.
†Percentage computation excludes from the "Adjusted Total" interest on debt for private automobiles which is no longer considered part of gross national product.
Source: Transportation Association of America.

Current Statistics

Net income, Class I roads	
Nine months, 1969	$372,000,000
Nine months, 1968	388,000,000
New freight cars on order	
Nov. 1, 1969	42,043
Nov. 1, 1968	21,388
New freight cars delivered	
10 mos., 1969	57,032
10 mos., 1968	47,599
Serviceable cars	
Nov. 1, 1969	1,360,659
Nov. 1, 1968	1,386,822



Source: Association of American Railroads.

YOU OUGHT TO KNOW

Penn Central will reduce capital outlays

Penn Central's capital expenditures in 1970 will be "substantially less" than the $300 million spent in 1969, says PC Chairman Stuart T. Saunders. Saunders said "further unification of the railroad can be continued at a lower rate of capital investment, and equipment requirements can be lowered by improved utilization of locomotives and freight cars." Saunders said Penn Central's main objective for 1970 "will be to improve the performance of our railroad through rigorous control of costs, better service, greater operating efficiency, and a higher volume of traffic. Whether we can achieve this objective depends on many factors such as sustained industrial activity, freight rates which will reflect higher labor costs, and the advent of federal aid for passenger service."

Australia now traversed by one-gauge line

Australia's great gauge-standardization project has been completed. The first freight run on the 2,459-mile route between Sydney and Perth, without a gauge change, is due to begin Jan. 12. The inaugural passenger run will start on Feb. 23. A journey that formerly took four days and involved travel on four separate trains with three changes of gauge will be made in 62 hours on the new Indian Pacific Express.

Seaboard allowed $5.3-million equipment paper

The ICC has authorized Seaboard Coast Line to issue equipment trust certificates totalling $5,340,000 to help acquire 30 3,000-hp. GP-40 diesel locomotives. The equipment-trust certificates would cover 80% of the total locomotive cost, $6,692,000.

SP establishes data-processing subsidiary

Southern Pacific is setting up a new subsidiary — TOPS On-Line Services, Inc.—to design, implement and operate data-processing systems for commercial customers. The new company will have its own computers, and will utilize a data-collection, processing and filing system which has been operating on SP since mid-1968. James W. Germany, general manager-management services for SP and president of the subsidiary, said the new organization "will occupy a unique position in the computer services field, by offering proven experience in putting together large-scale commercial data processing and high-speen communications. The latter is the missing ingredient in most on-line computer systems presently available." TOPS On-Line Services will operate as a direct subsidiary of SP's new holding company; Strong, Wishart & Associates, management consultants, will also be a shareholder.

Mexico carbuilder gets AT&SF order

Constructora Nacional de Carros de Ferrocarril will be building box cars this year for another U.S. railroad—Santa Fe. Missouri Pacific has twice placed orders with the Ciudad Sahagun, Mexico, carbuilder—for 100 box cars in 1963 and 150 cars in 1967. Santa Fe's order is for 200 50½-ft, 70-ton box cars equipped with Shock Control underframe. On the basis of present authorizations, the Sahagun order represents 20% of Santa Fe's 1970 new-car program.

Safe-speed coupling: It can be done

Last Oct. 16 was "National Observance Day" for careful car-handling—and if all cars were handled at all times as carefully as they were Oct. 16, freight loss and damage prevention might be a less trying proposition. Spot checks on observance day covered more than 18,000 couplings, and produced these results: In retarder/hump yards, 51.6% of couplings under 4 mph, 74.7% under 5 mph, 87.8% under 6 mph; in flat yards, 71.2% under 4 mph, 91.9% under 5 mph. 97.6% under 6 mph.

Transit suppliers size up 1970

(Continued from page 29)

accommodate. If the results are positive, it could mean an important breakthrough for other lines wanting to come into New York. And, of course, there would be a need for new signal equipment and other facilities.

● **Philadelphia.** SEPTA plans to purchase 144 new cars for the PC and Reading lines, and this should come to around $42 million. Award of contracts will come if and when DOT puts up its half-share of the cost. Another $4.3 million will be allocated for electrification, station facilities and refurbishing of older cars.

In rapid transit construction, the City of Philadelphia expects to let out contracts worth close to $55 million. Most important of these contracts is that for the first 1½ miles of the Northeast extension ($30 million) and that for another mile, including tunneling, to be awarded this spring ($15 million). There is no Federal aid involved. The money is being raised through city bonds and will be repaid from fare-box receipts.

Other contracts to be awarded this year will include the 10th and 11th stages of the City Hall-West Plaza subway complex ($2½ million) and the tearing down of one mile of elevated structure for relocation in the median of Interstate Highway 95 ($5 million).

There are no car orders scheduled from Philadelphia this year; however, 95 new 65-ft. air-conditioned rapid transit cars will be ordered in 1971—an expected expenditure of $14.25 million.

Final engineering work should be completed this year on a rail-airport extension for the city.

● **Washington.** The Washington Metropolitan Area Transit Authority shifted from idle to first gear in 1969 with the release of appropriations for construction of its $2.5-billion rapid transit system. For fiscal 1970, which began last July, approximately $93 million had been appropriated for construction. Two tunneling contracts totaling $46 million were awarded in December of 1969. For 1970 through June, three more construction contracts can be expected. The first of these will be for a 4000-ft. section of rock tunneling from DuPont Circle to Rock Creek ($8 million). About $15 million will be spent on a twin-box section in downtown Washington and $20-25 million on the Metro Center station. Some $20-$25 million was also appropriated for engineering and design work.

Expenditures for post-June depend on further appropriations. But if WMATA is expected to keep any semblance of order in its timetable, it would be a fair guess to expect the 1971 fiscal program to be significantly increased over that for 1970.

● **Boston.** The Massachusetts Bay Transportation Authority will be asking the 1970 legislature for an additional $300 million bond issue. This almost doubles the amount originally expected to be spent on MBTA's master plan. The money would be used to further extend the Haymarket-North line to Reading and the South Shore line to either Weymouth or Holbrook. If the issue is approved, there is the possibility that MBTA will order 130 new streetcars and 32 new rapid transit cars by the end of the year.

Work on the South Shore extension continues with about $17 million in construction contracts going out this year. Part of the extension, to Braintree, is expected to be in operation by the fall. A total of $6 million in contracts for station construction on the South Shore extension will be awarded

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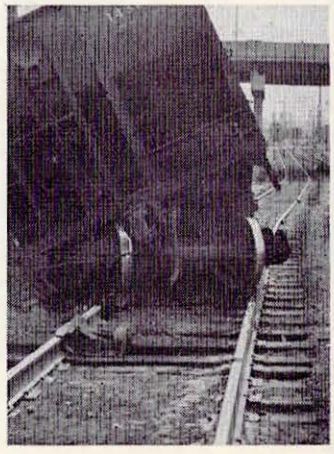

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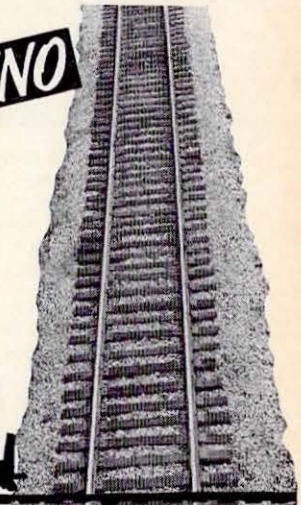

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Circle 21 on coupon page 35

and installation is expected to begin on an electronic fare collection system that will cost around $10 million.

New cars will be needed for the 6 miles of Haymarket-North extension by the summer of 1972. MBTA hopes to place an order for about 44 new cars in 1971.

● **Chicago.** Rock Island has had 10 bi-level cars on order from Pullman-Standard—five cab cars and five trailers. It has accepted two and should get the remaining eight by the end of January.

Of 13 gallery cars ordered by Chicago & North Western, Pullman-Standard has shipped eight and will ship the remainder in February.

Illinois Central placed a 123-car $37.8-million order with General Steel Industries in October 1969. Delivery of the first units should take place toward the latter part of 1970.

Neither the Burlington nor the Milwaukee ordered any new cars last year, and there are no plans for any orders this year.

If funds can be developed, the Chicago South Shore & South Bend hopes to order 30 new commuter cars this year.

The Chicago Transit Authority, which is experiencing a capital squeeze, plans no additional orders for 1970. CTA expects to take delivery of the remaining 100 of its 150 median strip cars this year. Construction of the Kennedy Expressway median strip, which has been delayed, should be completed in February.

● **Pittsburgh.** Most developments for the Pittsburgh area this year center around the $10.4-million acquisition of some 200 new buses, two-way radios for about 600 buses and construction of bus stop shelters. The DOT is expected to give the Port Authority of Allegheny County (PAT) the go-ahead for its controversial SKYBUS rapid transit system.

● **Elsewhere.** Cleveland will begin to take delivery in March of 10 more Pullman-Standard Airporter cars.

Significant construction work will begin on the Port Authority Trans-Hudson's $45-million Journal Square Transportation Center this year. The Center is scheduled for completion in 1971. PATH also plans to place an order for 46 rapid transit cars.

Another rapid transit proposal is being readied for Atlanta voters in either 1971 or 1972. Baltimore's proposed $1.7-billion system may need an addition to the sales tax to get it off the drawing boards; Buffalo has a major study under way; and Seattle is going to the voters for another round with a $400-million bond issue this year on May 19. ■

TRANSIT

William M. Reedy, administrator, San Francisco Electrical Industry Trust, has been elected president, **San Francisco Bay Area Rapid Transit District,** succeeding **Arnold C. Anderson. Stanley T. Gryduk,** Richmond Councilman and a BART representative from Contra Costa County, has been elected vice president of the district.

William M. Reedy
BART

Stanley T. Gryduk
BART

On Jan. 1 the Rail & Transit Division, **Vapor Corp.,** became the Transportation Systems Division.

George J. Clark, chief equipment engineer, **Chicago Transit Authority,** appointed superintendent of shops and equipment, to succeed **L. Gordon Anderson,** retired. **Charles W. Ricker, Jr.** assistant chief equipment engineer, replaces Mr. Clark.

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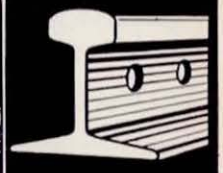

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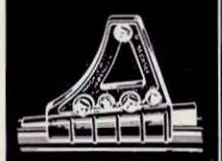

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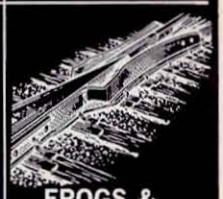

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VIEWPOINT

Will there really be a "tomorrow's railroad"?

Certain truths are self-evident. Others are taken on faith alone. Most are made up of a blend of fact and faith—even in the cold (and often cruel) world of business and commerce.

It could be argued that the most important of business decisions —those with the greatest long-range impact—are those which put together fact and faith in near-perfect balance. And it's precisely that kind of balance that must be created, if the railroad industry (and transportation generally) is to live up to the promise expressed in Railway Age's just-concluded year-long series, "Tomorrow's Railroads."

The reporter who put the series together, Senior Editor Gus Welty, topped off his TR chores for 1969 with a few personal reflections. They came in this note to the editor:

"LSM: An old friend just applied the crusher. He finished reading the 12th installment of TR, and he says he reviewed the reprint of the first 11 chapters. Then he picked up the phone and called. 'Yes, Gus,' he says, 'but will there *really* be a tomorrow's railroad?'

"He has a point. There *is* a lot of negative thinking going on, and when you start prowling around the industry it's not hard to develop an inferiority complex. Maybe some people *are* just minding the store —keeping things going while they wait for somebody (government?) to buy them out. Or bail them out, if you prefer.

"But, when you go out on the prowl you also find a lot of guys who don't for a minute sink into this kind of thinking. I'm not talking just about the so-called 'bright young men,' of which there really are a-plenty in this industry. I'm also talking about people who have been fighting railroad and industry battles for years—people who show bruises and scars, and who still haven't tossed in the towel. These are the people—the smart young ones and the savvy older ones—who are going to make tomorrow's railroads happen.

"They're going to get help, I'm convinced. Government can't forever ignore the need for real and sensible transportation planning. Pretty soon, I think, we'll see heat being applied to government by the business fraternity. After all, they've got the most to lose, if transportation falls apart—and hopefully they'll realize this sooner rather than later.

"I could even be convinced that railroads will get some sort of helping hand from the well-known rank-and-file. I am *not* convinced that morale is as bad as some people try to make out—or that the average employee doesn't care about anything beyond his next paycheck. When they have the chance, I've found—and my experience certainly isn't unique—union people are asking some pretty perceptive questions, about where the industry is going and how it's going to get there. They're concerned—they *want* to be concerned.

"What does all this prove? Well, it sure doesn't prove as much as I'd like it to prove. Some things need the application of a strong dose of faith, to go along with that which you can actually see—sort of like 'Yes, Virginia, there is a Santa Claus.'

"But, I look back on TR-year and, truthfully, I rather like what I've seen and what I feel. If it's all the same to you, I think I'll trust in the facts—and keep the faith.—GW"

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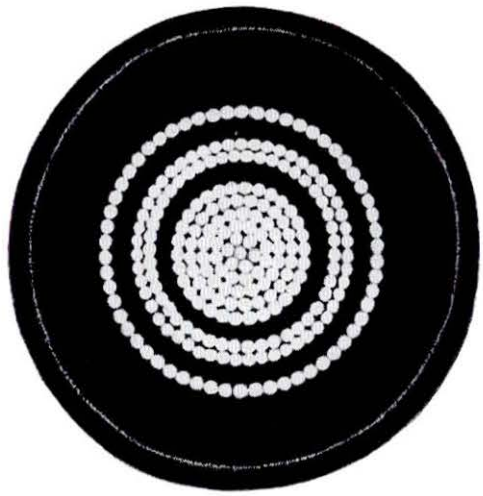

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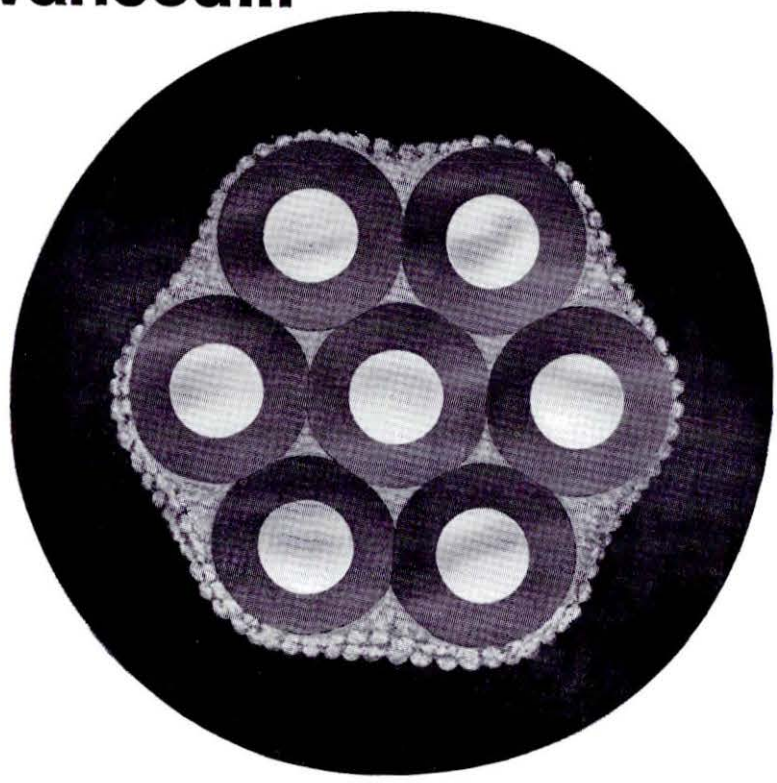

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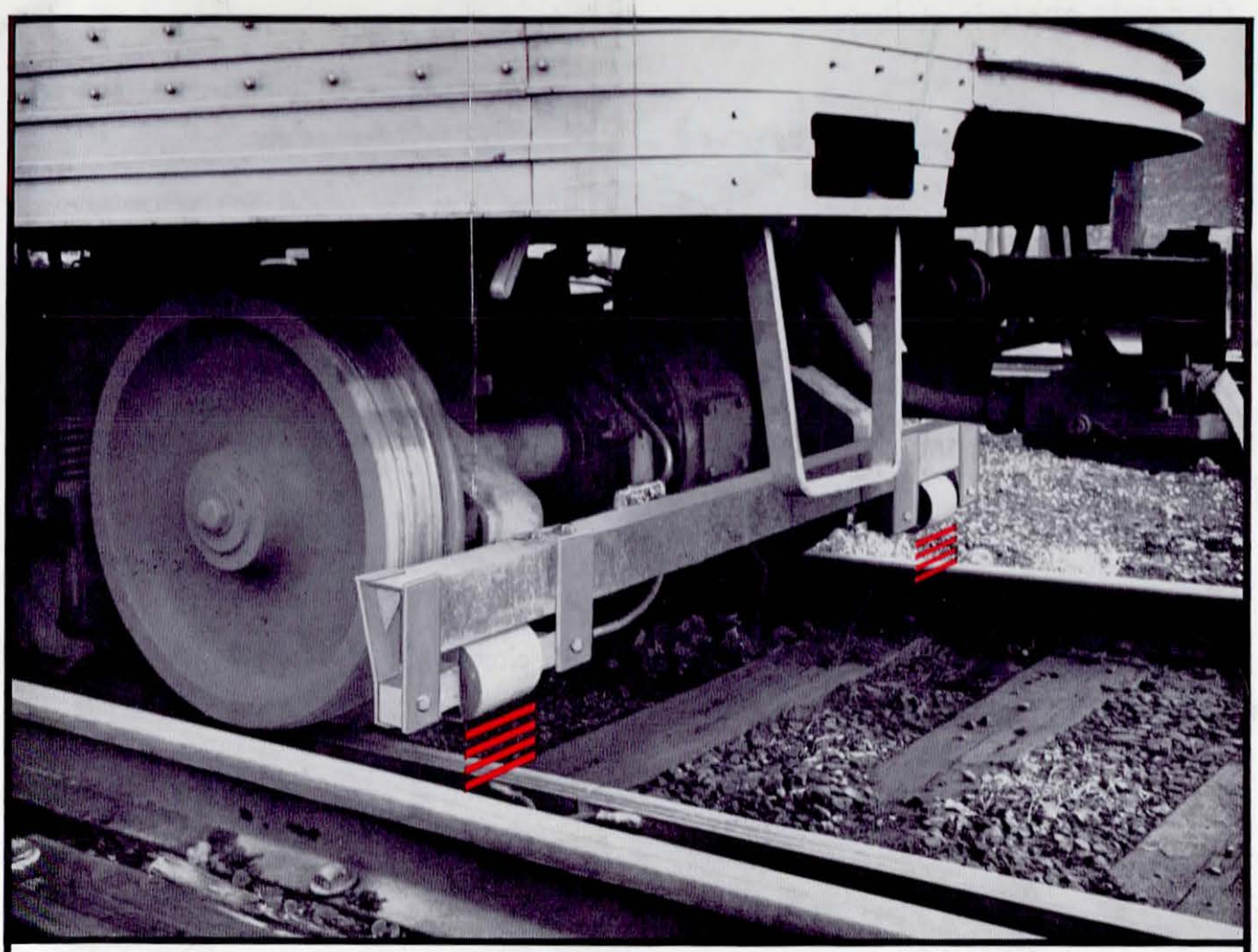

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